TOSHIBA

FILE NO. 070-200405

SERVICE MANUAL

LCD Colour TV

F4LW Chassis

32WL46B
32WL46G

May. 2004 (YC/X)

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⚠ SERVICE SAFETY PRECAUTIONS

- The caution items shown here describe major safety issues and should always be observed.
- The meanings of the various indications are as follows.

⚠ **WARNING**	Indicates a hypothetical situation in which service personnel and nearby third parties, or even end users due to a product defect after the service operation is completed, could possibly be in danger of injury or even death in the event of operational error.
⚠ **CAUTION**	Indicates a hypothetical situation in which service personnel and nearby third parties, or even end users after the service operation is completed, could possibly be in danger of injury, or where there could be physical damage in the event of operational error.

* Physical damage means major damage to a home, furnishings and other possessions.

Examples of marks

SHOCK HAZARD	The △ indicates caution (including danger and warning). The actual meaning of this caution is indicated inside the △ or nearby illustrations or text. The example shown to the left indicates the danger of "electrical shock".
PROHIBIT DISASSEMBLING	The ⃠ indicates a forbidden action. The actual meaning of this caution is indicated inside the ⃠ or nearby illustrations or text. The example shown to the left indicates that disassembly is forbidden.
UNPLUG	The ● indicates a forced action (an action that must be performed). The actual meaning of this forced action is indicated by ● or nearby illustrations or text. The example shown to the left indicates that the power plug must be disconnected.

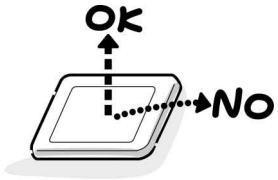
	⚠ WARNING
KEEP CHILDREN AWAY	• Always advise users to keep children away. There is danger of injury to children from tools, disassembled products, etc.
UNPULUG	• Always disconnect the power plug before starting work whenever power is not required. Failure to disconnect the power plug before starting work can result in electrical shock.
SHOCK HAZARD	• Depending on the model, use an insulation transformer or wear gloves when servicing with the power on, and disconnect the power plug to avoid electrical shock when replacing parts. In some cases, alternating current is also impressed in the chassis, so electrical shock is possible if the chassis is contacted with the power on.
USE SPECIFIED PARTS	• Always use the replacement parts specified for the particular model when making repairs. The parts used in products have the necessary safety characteristics such as inflammability, voltage resistance, etc.; therefore, use only replacement parts that have these same characteristics. Use only the specified parts when the ⚠ mark is included in a circuit diagram or parts list.
CAUTION FOR WIRING	• Parts mounting and routing of the wiring should be the same as that used originally. For safety purposes, insulating materials such as tubing or tape is sometimes used and printed circuit boards are sometimes mounted floating. Also make sure that wiring is routed and clamped to avoid parts that generate heat and which use high voltage. Always follow the original scheme.
CAUTION FOR ASSEMBLING / WIRING	• After a repair has been completed, reassemble all disassembled parts, and route and reconnect the wiring, in accordance with the original scheme. Do not allow internal wiring to be pinched by cabinets, panels, etc. Any error in reassembly or wiring can result in electrical leakage, flame, etc., and may be hazardous.
CHECK INSULATION RESISTANCE	• After completing the work, disconnect the power plug from the outlet, remove the antenna, turn on the power switch. Then, use a 500V insulation resistance meter to check the insulation resistance of the antenna terminal, other metallic parts and between the prongs of the power plug to make sure that the insulation resistance is 1M Ω or more. The set will require inspection and repair if the insulation resistance is below this value.
PROHIBIT REMODELING	• Never remodel the product in any way. Remodeling can result in improper operation, malfunction, or electrical leakage and flame, which may be hazardous

HANDLING THE LCD MODULE

Safety Precautions
In the event that the screen is damaged or the liquid crystal (fluid) leaks, do not breathe in or drink this fluid. Also, never touch this fluid.
Such actions could cause toxicity or skin irritation. If this fluid should enter the mouth, rinse the mouth thoroughly with water. If the fluid should contact the skin or clothing, wipe off with alcohol, etc., and rinse thoroughly with water. If the fluid should enter the eyes, immediately rinse the eyes thoroughly with running water.

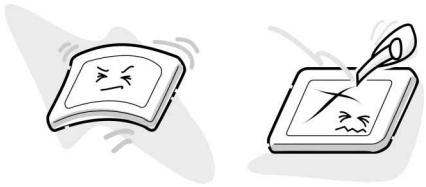
Precautions for Handling the LCD Module
The LCD module can easily be damaged during disassembly or reassembly; therefore, always observe the following precautions when handling the module.

1. When attaching the LCD module to the LCD cover, position it appropriately and fasten at the position where the display can be viewed most conveniently.



2. Carefully align the holes at all four corners of the LCD module with the corresponding holes in the LCD cover and fasten with screws. Do not strongly push on the module because any impact can adversely affect the performance. Also use caution when handling the polarized screen because it can easily be damaged.

CAUTION	The metal edges of the LCD module are sharp, so use caution to avoid injury.

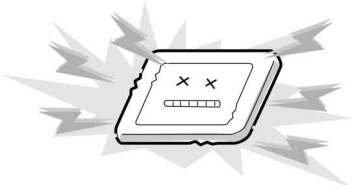


3. If the panel surface becomes soiled, wipe with cotton or a soft cloth. If this does not remove the soiling, breathe on the surface and then wipe again.
If the panel surface is extremely solied, use a CRT cleaner as a cleaner. Wipe off the panel surface by drop the cleaner on the cloth. Do not drop the cleaner on the panel. Pay attention not to scratch the panel surface.

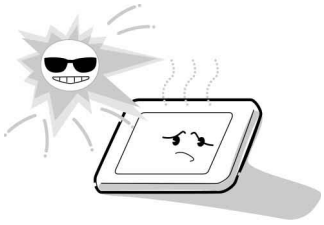
4. Leaving water or other fluids on the panel screen for an extended period of time can result in discoloration or stripes. Immediately remove any type of fluid from the screen.

5. Glass is used in the panel, so do not drop or strike with hard objects. Such actions can damage the panel.

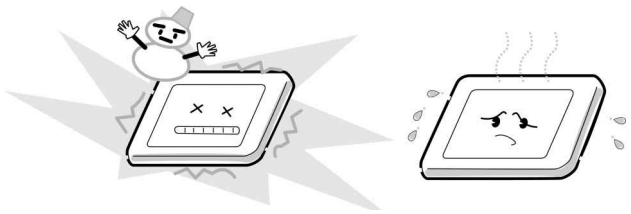
6. CMOS-LSI circuitry is used in the LCD module, so avoid damage due to static electricity. When handling the module, use a wrist ground or anchor ground.



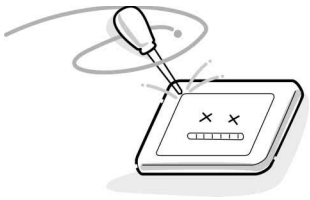
7. Do not expose the LCD module to direct sunlight or strong ultraviolet rays for an extended period of time.



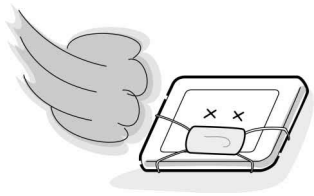
8. Do not store the LCD module below the temperature conditions described in the specifications. Failure to do so could result in freezing of the liquid crystal due to cold air or loss of resilience or other damage.



9. Do not disassemble the LCD module. Such actions could result in improper operation.



10. When transporting the LCD module, do not use packing containing epoxy resin (amine) or silicon resin (alcohol or oxim). The gas generated by these materials can cause loss of polarity.



Cleaning

Remove the power plug before cleaning.
Do not use solvents such as benzine or thinner to clean the TV.
– These solvents may distort the cabinet or damage its finish.
– If rubber or vinyl products remain in contact with the TV for a long time, a stain may result.

When the cabinet becomes dirty, clean it with a soft, dry cloth.
When the cabinet is very dirty.
– Use a damp cloth to wipe the cabinet clean.
– Finish with a dry cloth.

When cleaning the surface of the LCD display:
– Wipe the panel surface gently with a soft, dry cloth.

When dust has collected on the power plug connectors, remove the plug from the outlet and clean off the dust.
This dust may cause a fire due to reduced insulation on the plug.

SERVICE MODE

1. ENTERING TO SERVICE MODE

(1) Procedures

1) Press MUTE key of remote hand unit to indicate MUTE on screen.
2) Press again MUTE key of remote hand unit to keep pressing until the next procedure.
(OSD display disappears.)
3) In the status of above (2), press MENU key on TV set.

(2) During service mode, indication S is displayed at upper right corner on screen.

(3) Service mode is not memorized as the last-memory.

2. TEST SIGNAL SELECTION

The function of VIDEO test signal selection is cyclically changed with VIDEO key (remote unit) in Service mode.

Table 1

Test signal No.	Name of pattern
0	Signal OFF
1	NTSC All Red signal
2	NTSC All Green signal
3	NTSC All Blue signal
4	NTSC Cross hatch
5	NTSC All white signal
6	PAL All Red signal
7	PAL All Green signal
8	PAL All Blue signal
9	PAL Cross hatch
10	PAL All white signal
0	Signal OFF

3. SERVICE ADJUSTMENT

(1) ADJUSTMENT MENU INDICATION ON/OFF :
MENU key(on TV set)

(2) During display of adjustment menu,the followings are effective.

1) Selection of adjustment item :
POS UP/DN key (on TV/Remote unit)
2) Adjustment of each item :
VOL UP/DN key (on TV/Remote unit)
3) Direct selection of adjustment item
R CUTOFF : 1 POS (Remote unit)
G CUTOFF : 2 POS (Remote unit)
B CUTOFF : 3 POS (Remote unit)
4) Data setting for PC unit adjustment
SUB CONTRAST : 4 POS (Remote unit)
SUB COLOR : 5 POS (Remote unit)
SUB TINT : 6 POS (Remote unit)
5) Screen adjustment mode ON/OFF: Previous
6) Test signal selection: VIDEO (Remote unit)
* In service mode, serviceable items are limited.

(3) Self check display : 9 POS (Remote unit)
* Cyclic display

(4) Initialization of memory (QA02 E^2PROM) :
CALL (Remote unit)+POS UP(TV)
Causion : All data of memory IC (including factory setting value) is initialized by this operation.
(Replacement of memory IC is required.)

(5) Initialization of self check data :
CALL (Remote unit)+POS DN(TV)

(6) BUS OFF :
CALL (Remote unit)+VOL UP(TV)

4. FAILURE DIAGNOSIS PROCEDURE

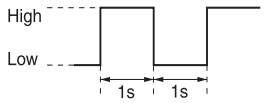
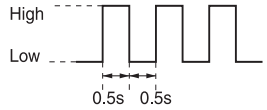
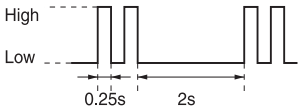
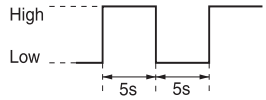
This model is equipped with self diagnosis function inside for trouble shooting.

4-1.Contents to be Confirmed by Customer

Table 2

Contents of self diagnosis	Display items and actual operation
Set Power does not turn on by power-key, or it turns off automatically. 1.When power protection circuit operates; 2.When FAN STOP was detected: 3.When failure of Audio circuit was detected:	Power indicator lamp blinks and picture does not come. 1.Power indicator red lamp blinks. (0.5 seconds interval) 2.Power indicator red lamp blinks. (3 seconds interval) 3.Power indicator red lamp blinks. (5 seconds interval) If these indications appear, repairing work is required.

DIAGNOSIS FUNCTION FOR LED INDICATION

LED	CAUSE
LED is lit in 1 second at intervals of 1 second. 	Short-circuit detection of BUS line BUS line may possibly be short-circuit (SDA to SCL), or BUS line (SDA, SCL) is grounded.
LED is lit in 0.5 at intervals of 0.5 second. 	Overcurrent limiter detection POWER terminal on TV microprocessor becomes LOW at 2 seconds or more.
LED is lit in 0.25 second at intervals of 2 second. 	Interruption of FAN motor function detection No. 53 terminal on TV microprocessor becomes HIGH for 30 seconds.
LED is lit in 5 seconds at intervals of 5 seconds. 	Abnormal sound detection P4 terminal of QS10 becomes LOW for 15 seconds during Speaker is activated.

High : Lighting Low : No Lighting

4-2. Contents to be Confirmed in Service Work (Check in Self Diagnosis Mode)

Table 3

Contents of self diagnosis	Display items and actual operation
Contents of self diagnosis	Display items and actual operation
B. Indication of part code of microprocessor.(QA01)	* Please see item.4-4
C. Total Time of Power on (hour)	
D. Number of operation of power protection circuit	
E. Check of communication status in BUS line	
F. Check of signal line by sync signal detection	

4-3. Executing Self Diagnosis Function

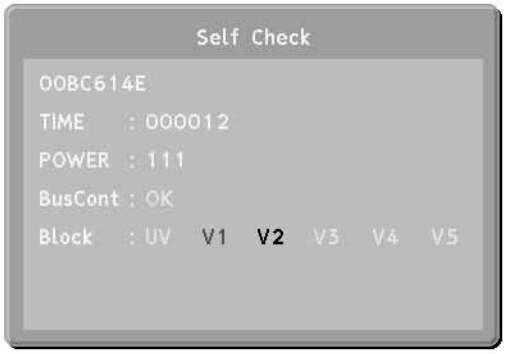
Procedures

(1) Set to service mode.

(2) Pressing "9" key on remote unit displays self diagnosis result on screen.
Every pressing changes mode as below.
SERVICE mode → SELF DIAGNOSIS mode → M2 System version info → Version check(QA01,QM24 etc)

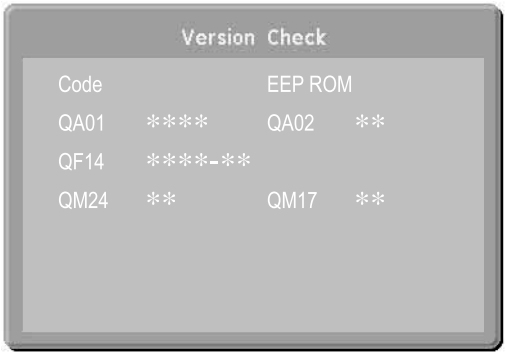
(3) To exit from service mode, turn power off.

<SELF DIAGNOSIS mode>



<OSD/TEXT M2 Sub System Information>

<Version Check>



Description for Version Check Screen

QA01 **** – Version information for MainMicom(QA01)

QA02 ** – Version information for E^{2}PROM(QA02)

QF14 ****-** – Version information for M2 Sub-Micom(QF14)

QM24 ** – Version information for BEP Sub-Micom(QM24)

QM17 ** – Version information for BEP E^{2}PROM(QM17)

4-4. Self Diagnosis Function Indication & Contents

<Example of screen display>

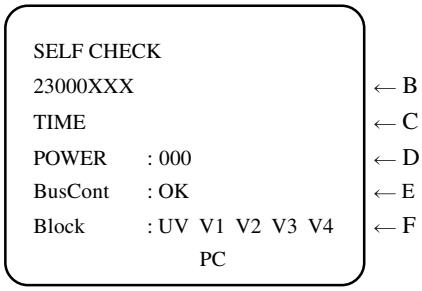


Fig. 1

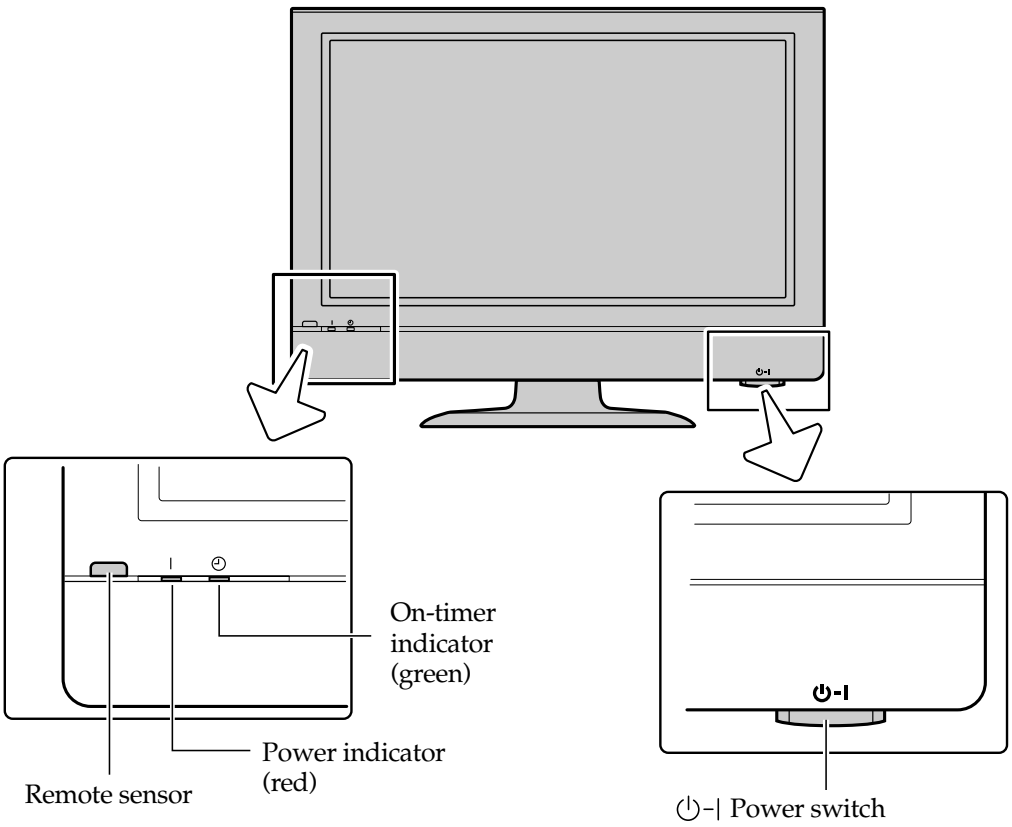
Table 4

Item	Contents	Instruction of results
B) Part code	Indication of part code of microprocessor. (QA01)	
C) TIME	Total Time of Power on (hour)	
D) POWER	Number of operation of power protection circuit	
E) BUS CONT	Communication state of bus line	Indication of"OK"for normal result Indication of failure place in abnormality (Failure place to be indicated) QA02 NG, H001 NG, Q501 NG, QV01 NG, Q4420 NG H002 NG QA02 : E^2PROM, H001 : MAIN TUNER, Q501 : MCD QV01: AVSW, Q4420 : SCAN PROCESSOR H002 : ITT,DSP,APRO Note 1. The indication of failure place is only one place though failure places are plural. When repair of a failure place finishes, the next failure place is indicated.
F) BLOCK	The sync signal part in each video signal supplied from each block is detected. Then by checking the existence or non of sync part, the result of self diagnosis is displayed on screen. Besides, when "9" key on remote unit is pressed, diagnosis operation is first executed once.	*Indication by color Select Source : Sync exists = Green : No Sync = Red Other Source : Black

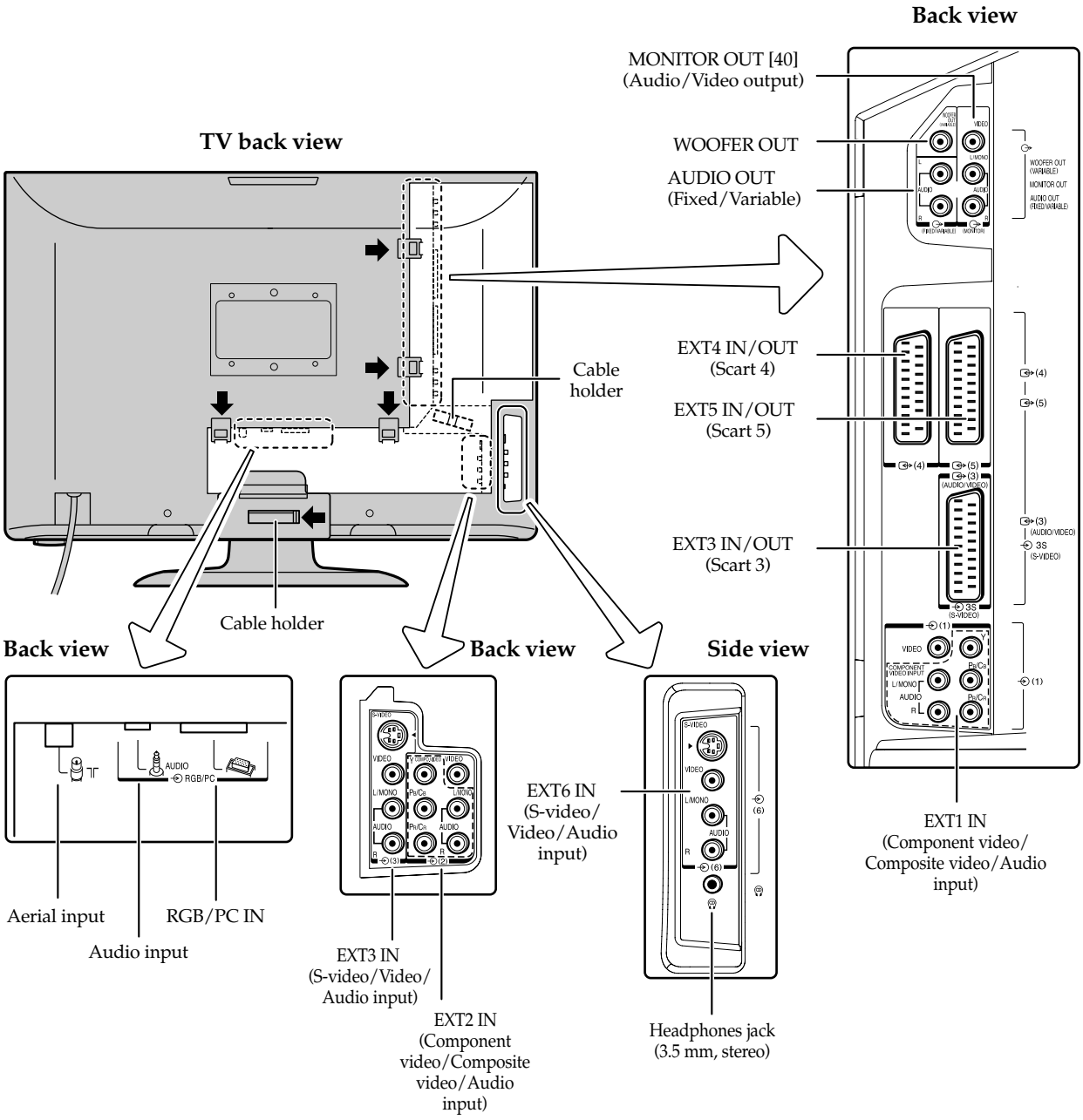
LOCATION OF CONTROLS

Front

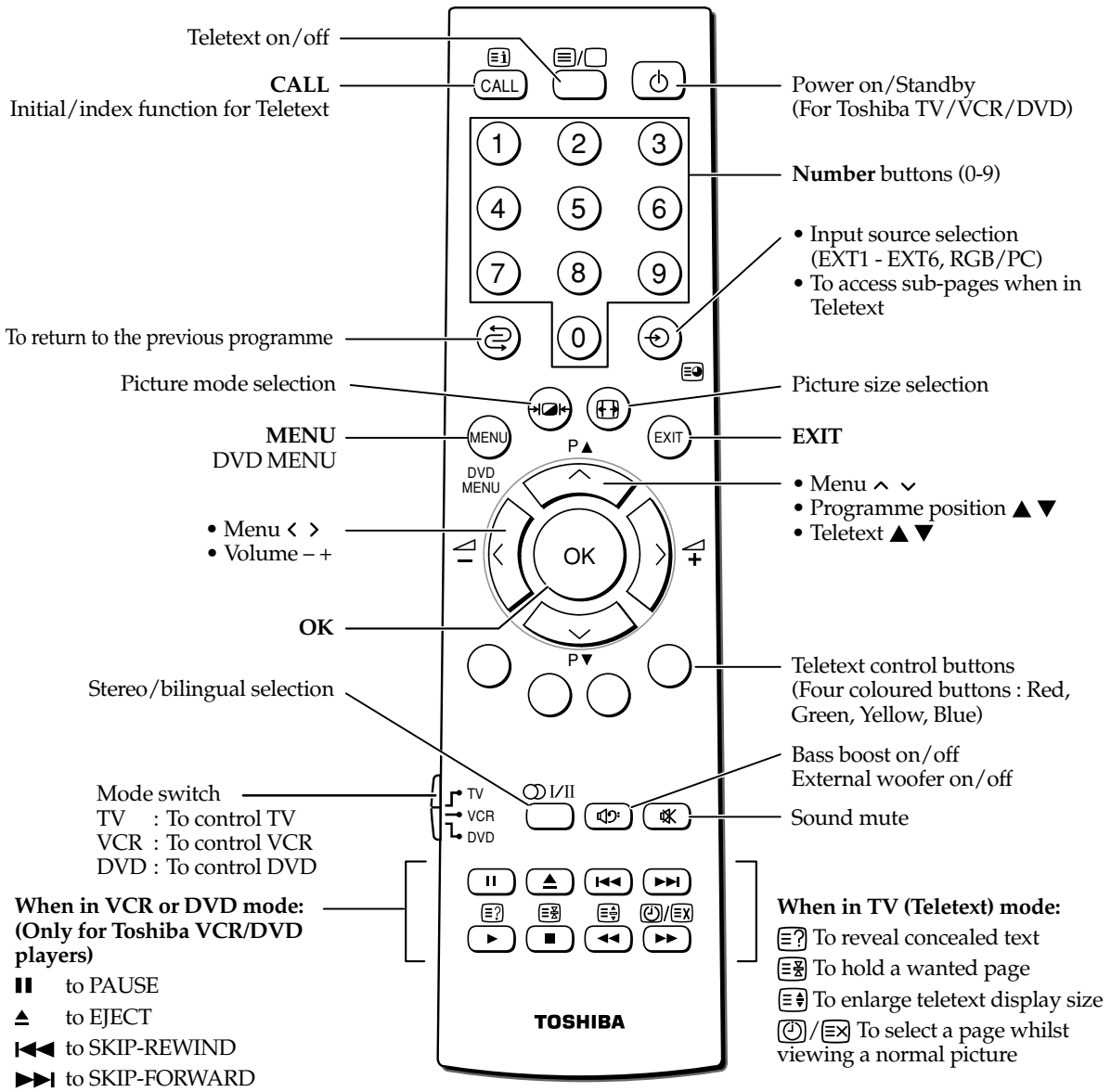
TV front view



Back

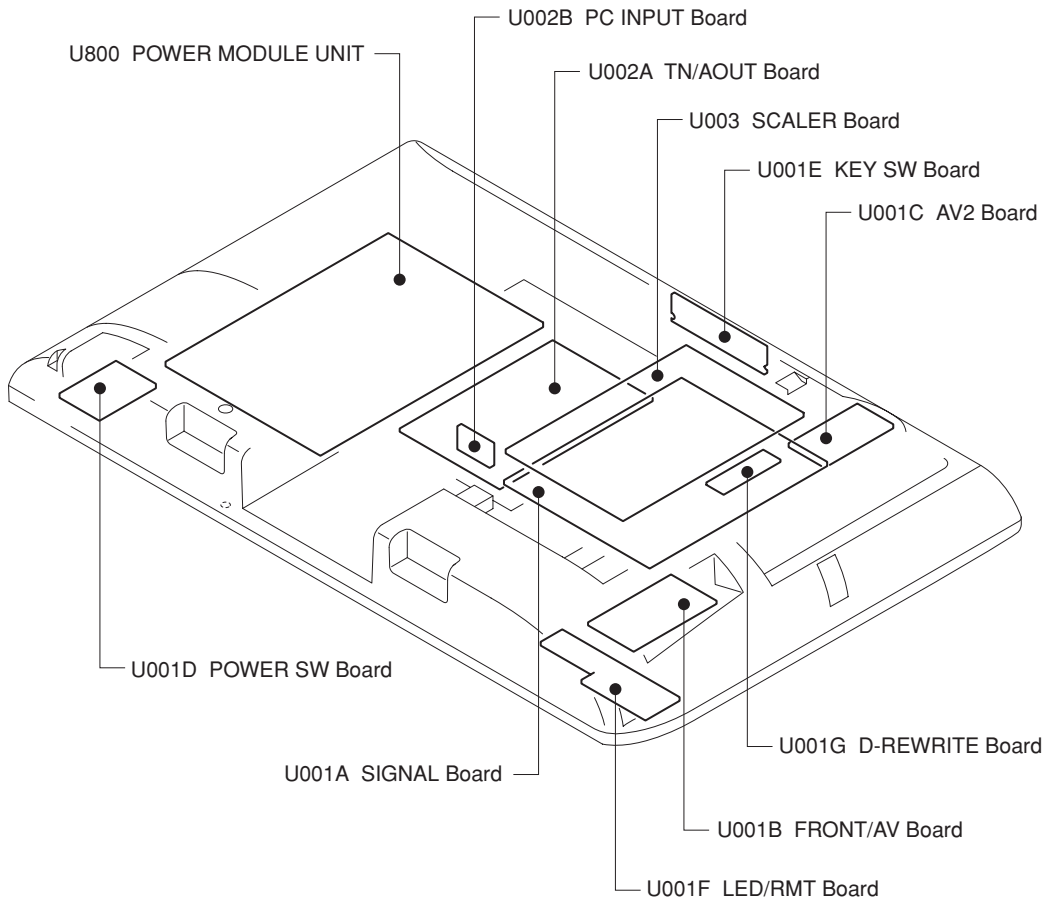

Back view
MONITOR OUT [40]
(Audio/Video output)
WOOFER OUT
AUDIO OUT
(Fixed/Variable)
EXT4 IN/OUT
(Scart 4)
EXT5 IN/OUT
(Scart 5)
EXT3 IN/OUT
(Scart 3)
EXT1 IN
(Component video/
Composite video/Audio
input)
TV back view
Cable
holder
Cable holder
Back view
Aerial input
RGB/PC IN
Audio input
Back view
EXT3 IN
(S-video/Video/
Audio input)
EXT2 IN
(Component
video/Composite
video/Audio
input)
Side view
EXT6 IN
(S-video/
Video/Audio
input)
Headphones jack
(3.5 mm, stereo)

Remote Control



MEMO

LAYOUT OF MAJOR BOARDS

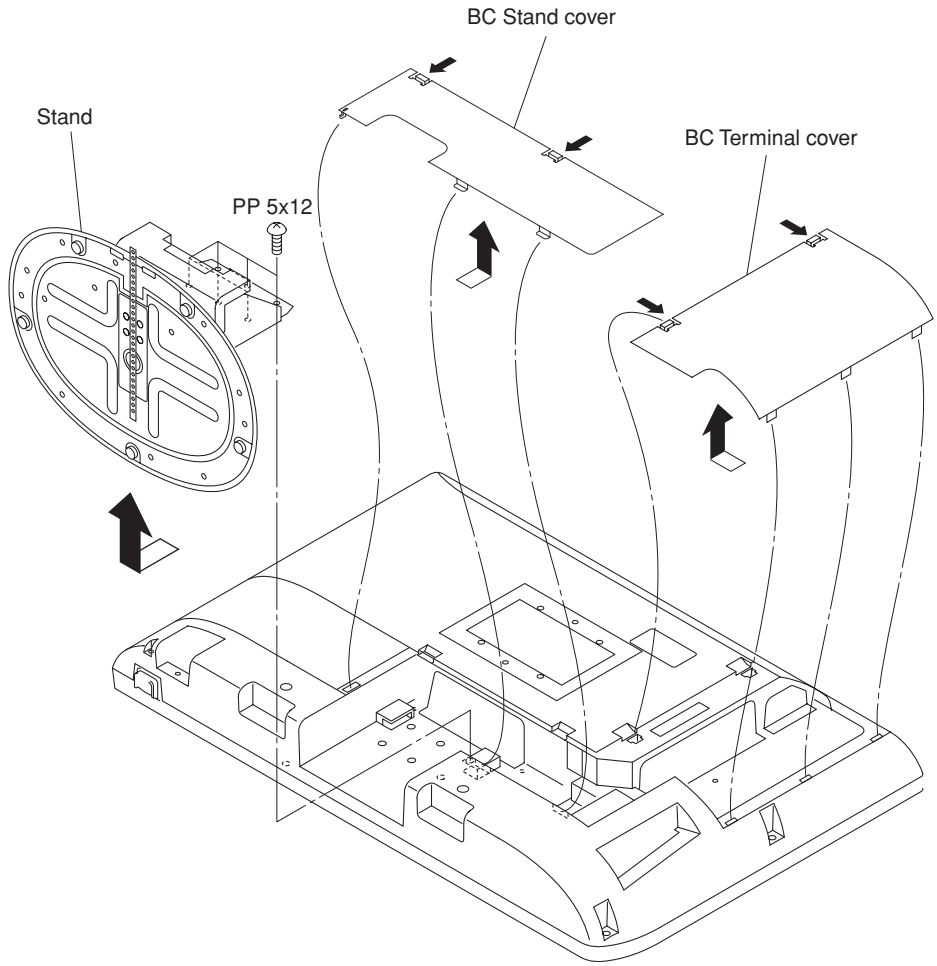


MECHANICAL DISASSEMBLY

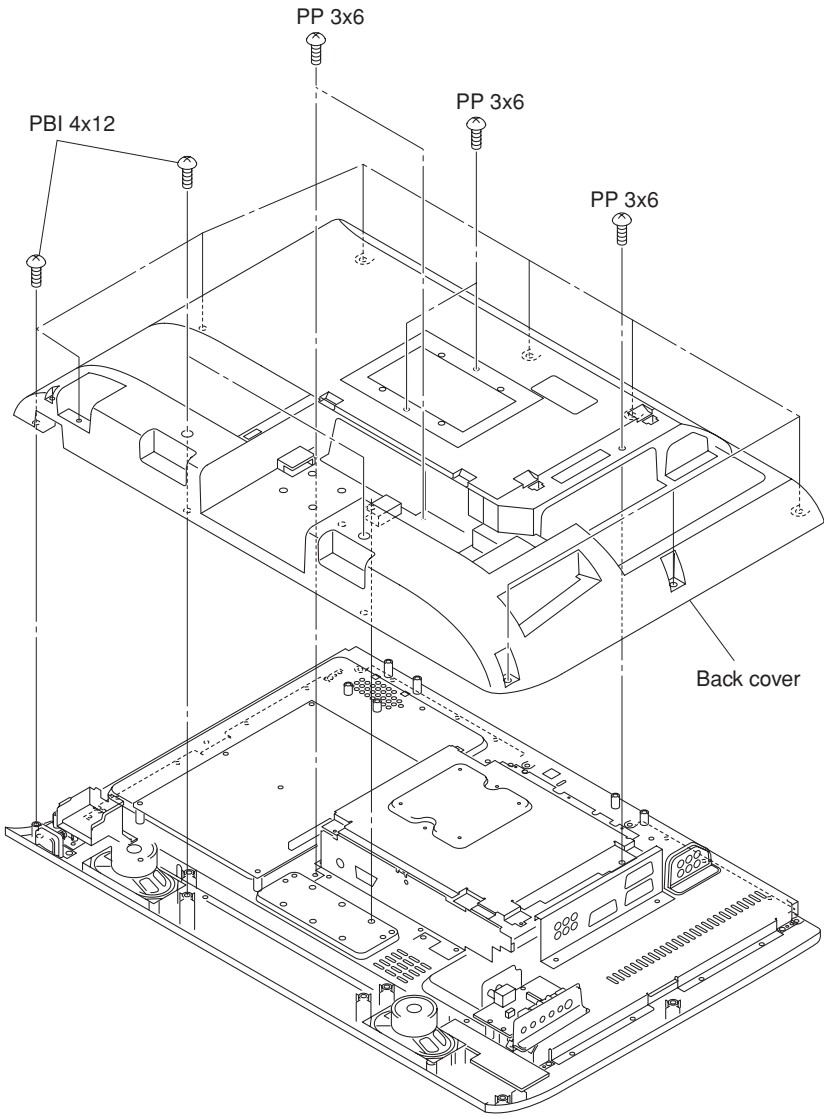
• Note: Be sure to lay down the main body (by placing its screen downward) for disassembly.

1. Removing the back cover

1) Remove the BC stand cover.
2) Remove the BC terminal cover.
3) Remove 6 screws, then remove the stand.

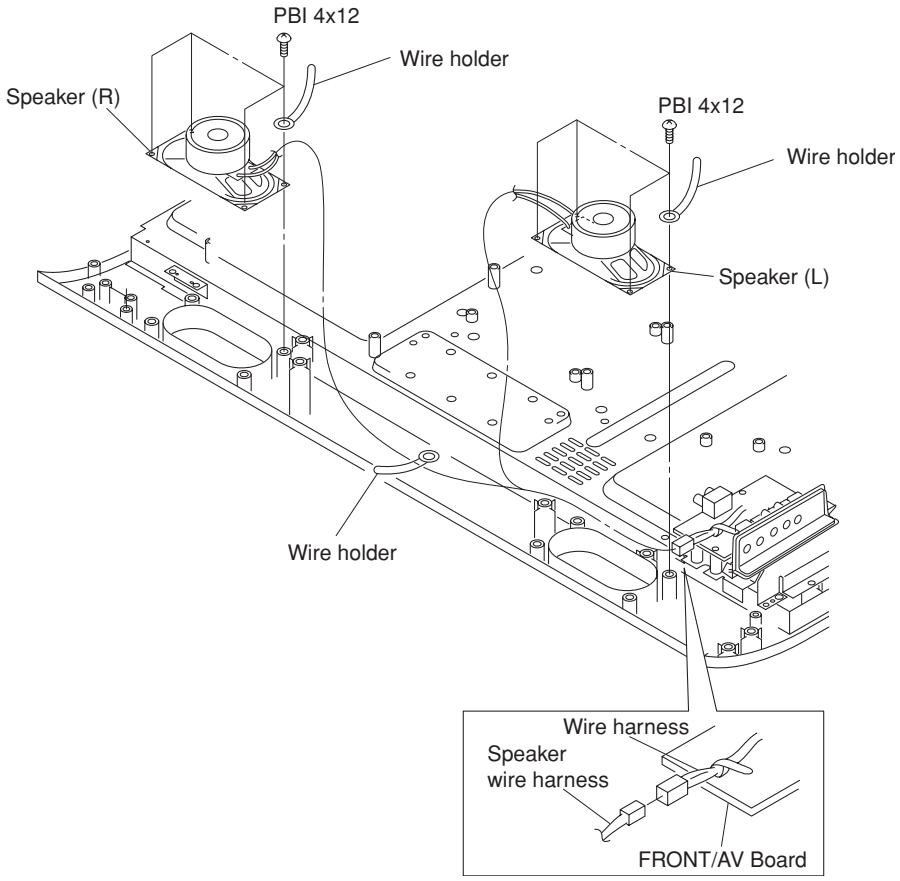


4) Remove 11 screws (PBI 4x12).
5) Remove 5 screws (PP 3x6).
6) Remove the back cover.



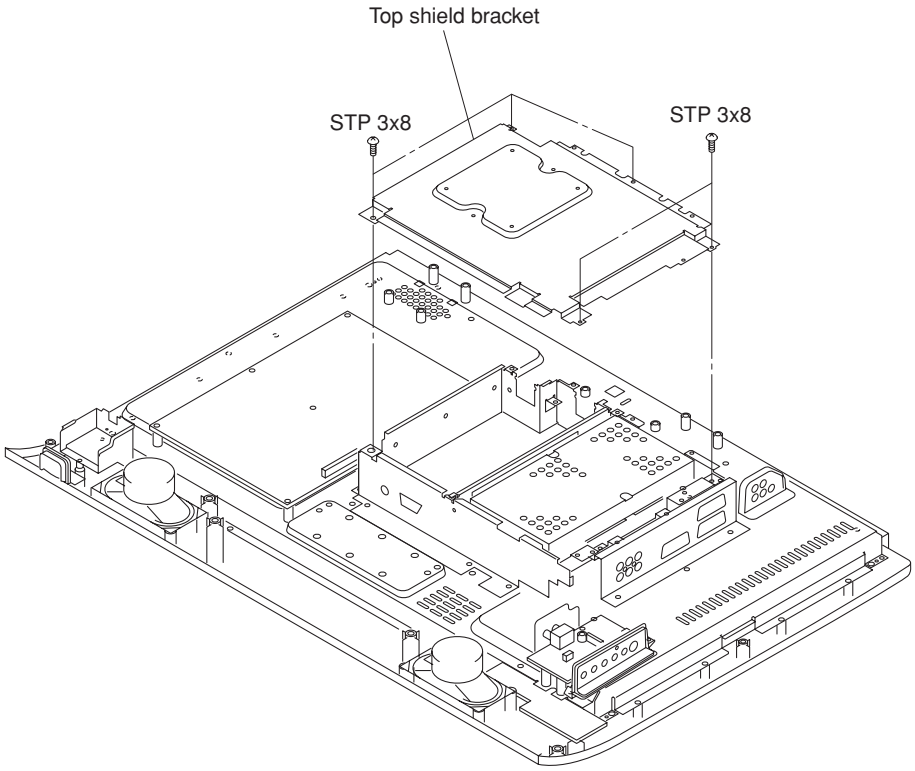
2. Removing the speakers

1) Remove the back cover. (Refer to Item 1.)
2) Disconnect the speaker wire harness on the Front/AV board.
3) Remove the wire harness of the 3 wire holders.
4) Remove 4 screws, then remove the left speaker and wire holder.
5) Remove 4 screws, then remove the right speaker and wire holder.



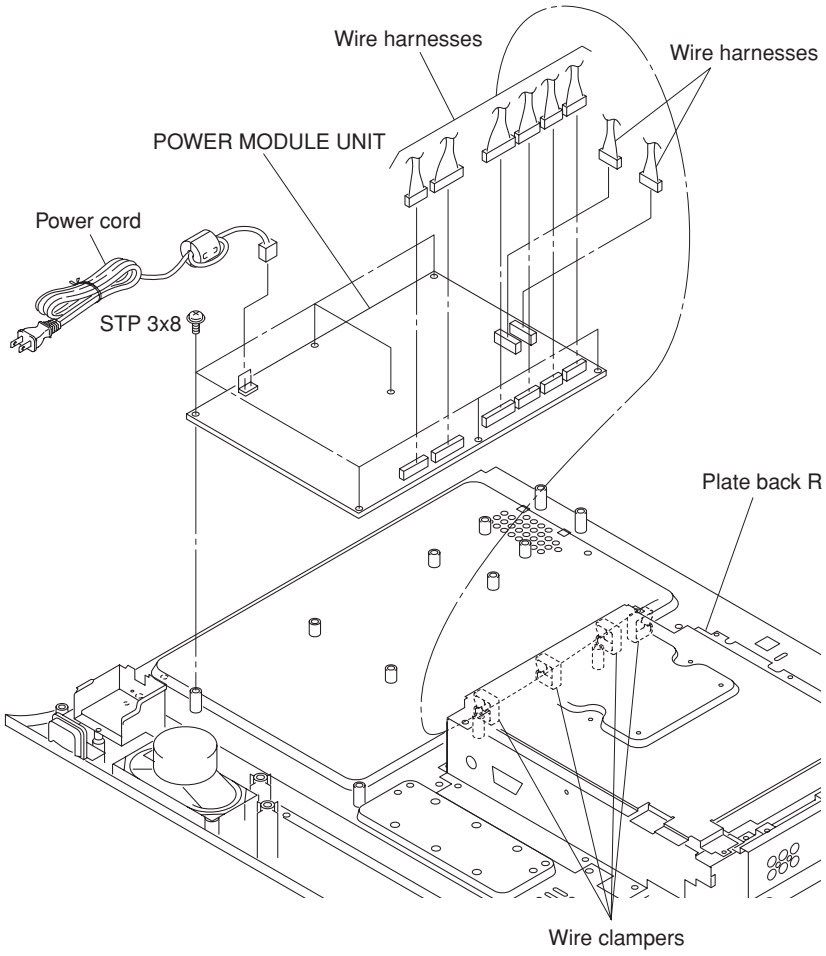
3. Removing the top shield bracket

1) Remove the back cover. (Refer to Item 1.)
2) Remove 5 screws, then remove the top shield bracket.



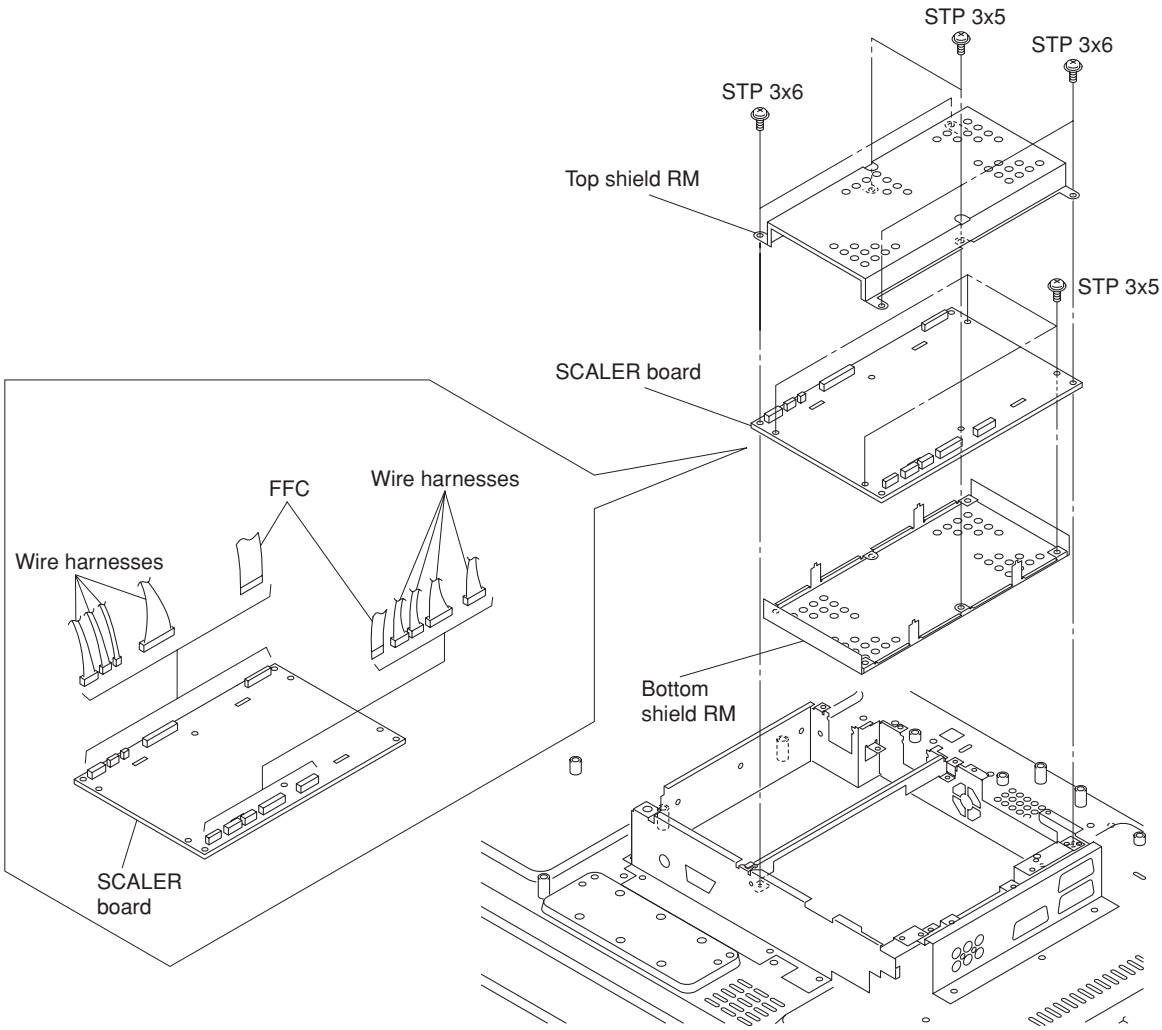
4. Removing the Power Module unit

1) Remove the back cover. (Refer to Item 1.)
2) Disconnect the power cord from the connector.
3) Remove the 3 wire harnesses from the 3 wire clampers on the plate back R.
4) Disconnect the 8 wire harnesses from the 8 connectors on the Power Module unit.
5) Remove 7 screws, then remove the Power Module unit.



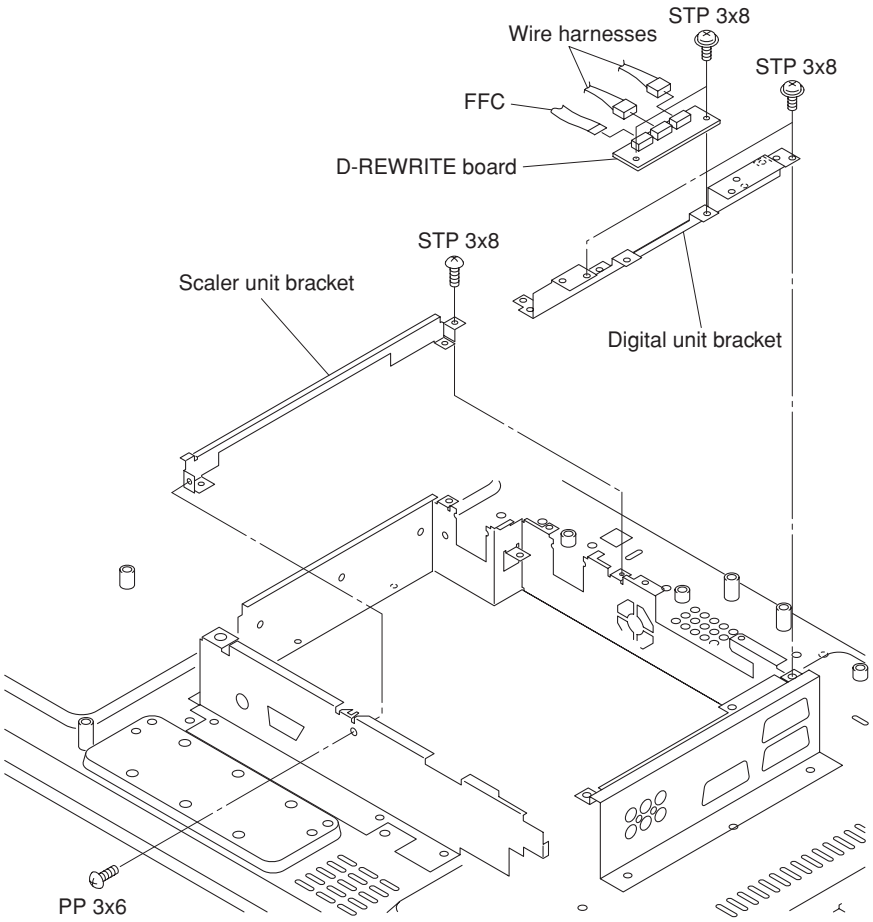
5. Removing the Scaler board

1) Remove the back cover. (Refer to Item 1.)
2) Remove the top shield bracket. (Refer to Item 3.)
3) Remove 4 screws (STP3x6) and 2 screws (STP3x5), then remove the top shield RM.
4) Disconnect the 8 wire harnesses and 2 FFC from the Scaler board.
5) Remove 4 screws (STP3x5), then remove the Scaler board and bottom shield RM.



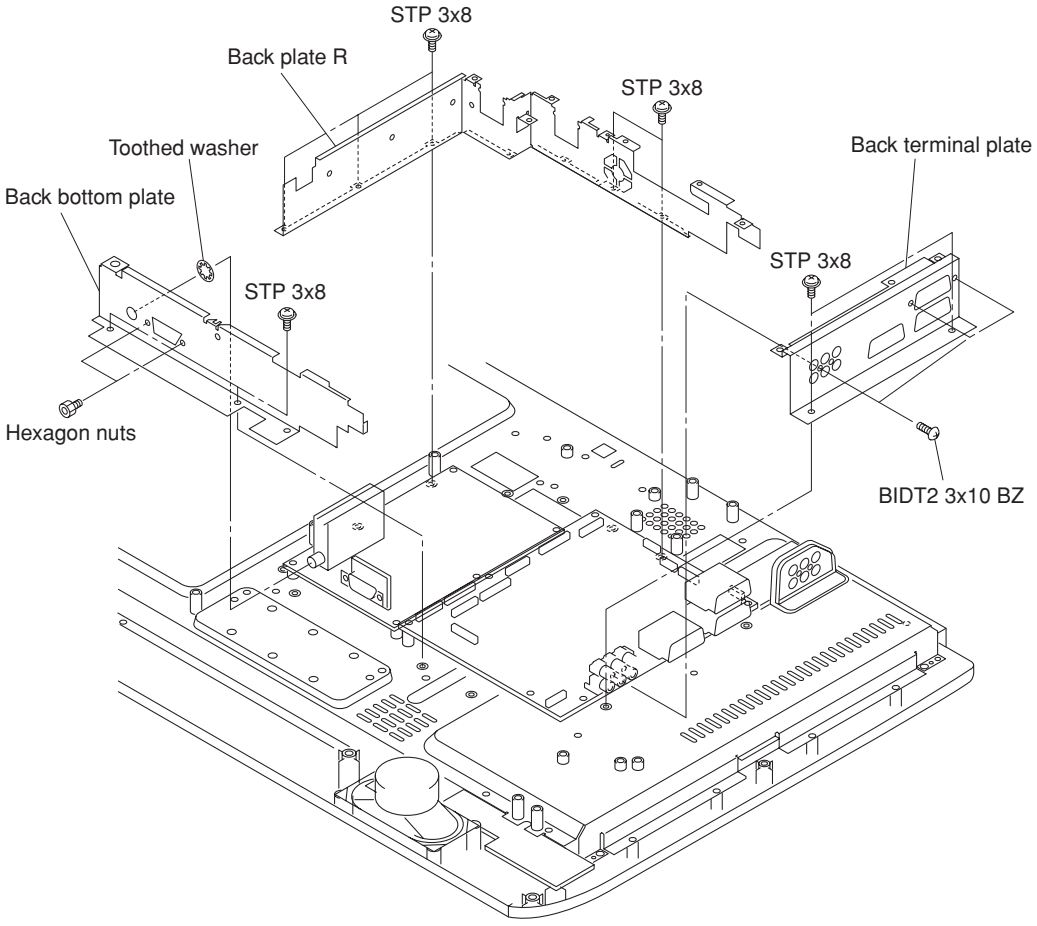
6. Removing the D-Rewrite board

1) Remove the back cover. (Refer to Item 1.)
2) Remove the top shield bracket. (Refer to Item 3.)
3) Remove the Scaler board. (Refer to Item 5.)
4) Remove 2 screws, then remove the D-Rewrite board.
5) Disconnect the 2 wire harnesses and 1 FFC on the D-Rewrite board.
6) Remove 2 screws, then remove the digital unit bracket.
7) Remove 2 screws, then remove the scaler unit bracket.



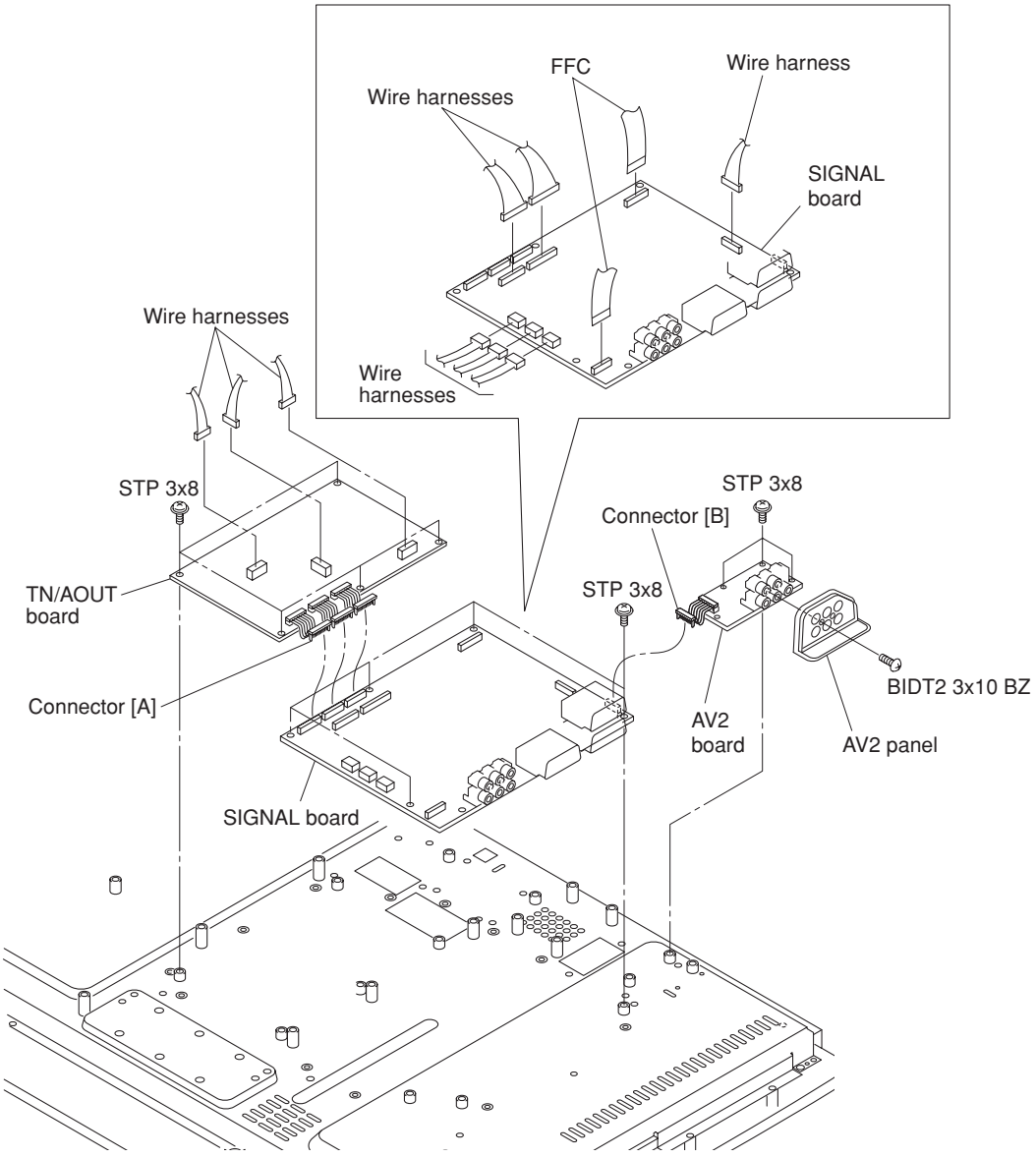
7. Removing the back terminal plate, back bottom plate and back R plate

1) Remove the back cover. (Refer to Item 1.)
2) Remove the top shield bracket. (Refer to Item 3.)
3) Remove the Scaler board. (Refer to Item 5.)
4) Remove the D-Rewrite board. (Refer to Item 6.)
5) Remove 5 screws (BIDT 2 3x10BZ) and 2 screws, then remove the back terminal plate.
6) Remove 2 screws (STP 3x8), 2 hexagon nuts and 1 toothed washer, then remove the back bottom plate.
7) Remove 5 screws (STP 3x8), then remove the back R plate.



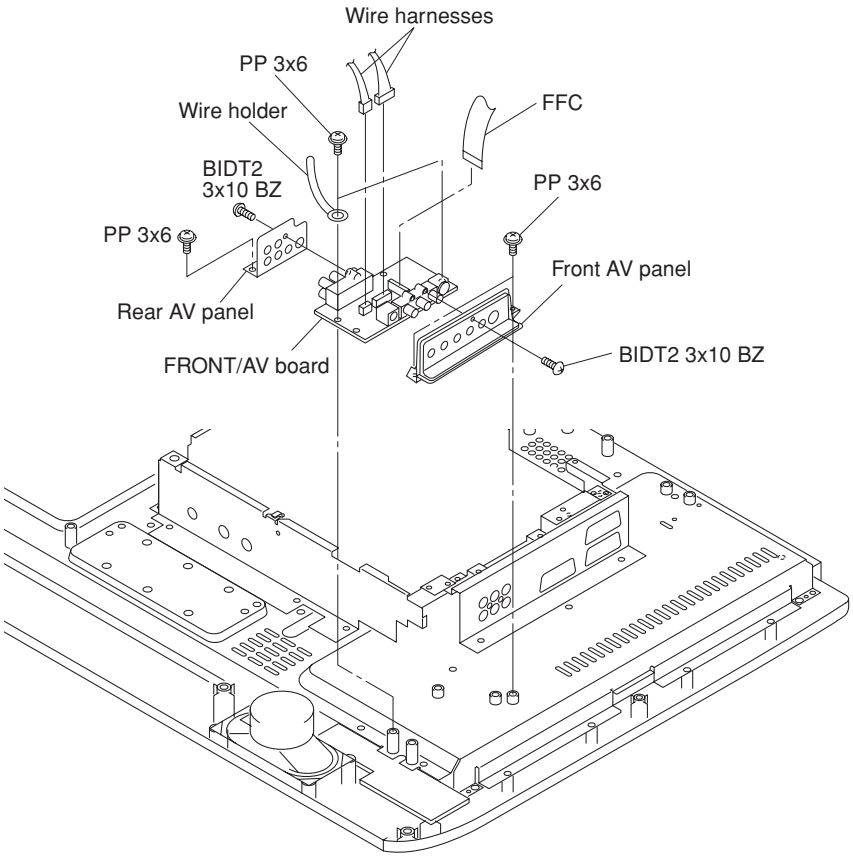
8. Removing the TN/AOUT, AV2 and Signal boards

1) Remove the back cover. (Refer to Item 1.)
2) Remove the top shield bracket. (Refer to Item 3.)
3) Remove the Scaler board. (Refer to Item 5.)
4) Remove the D-Rewrite board. (Refer to Item 6.)
5) Remove the back plates. (Refer to Item 7.)
6) Remove the connector [A] and 3 harnesses from the TN/AOUT board.
7) Remove 5 screws (STP 3x8), then remove the TN/AOUT board.
8) Remove the connector [B] from the Signal board.
9) Remove 3 screws (STP 3x8), then remove the AV2 board.
10) Remove 1 screw (BIDT2 3x10BZ), then remove the AV2 panel.
11) Remove the 6 wire harnesses and 2 FFC from the Signal board.
12) Remove 5 screws (STP 3x8), then remove the Signal board.



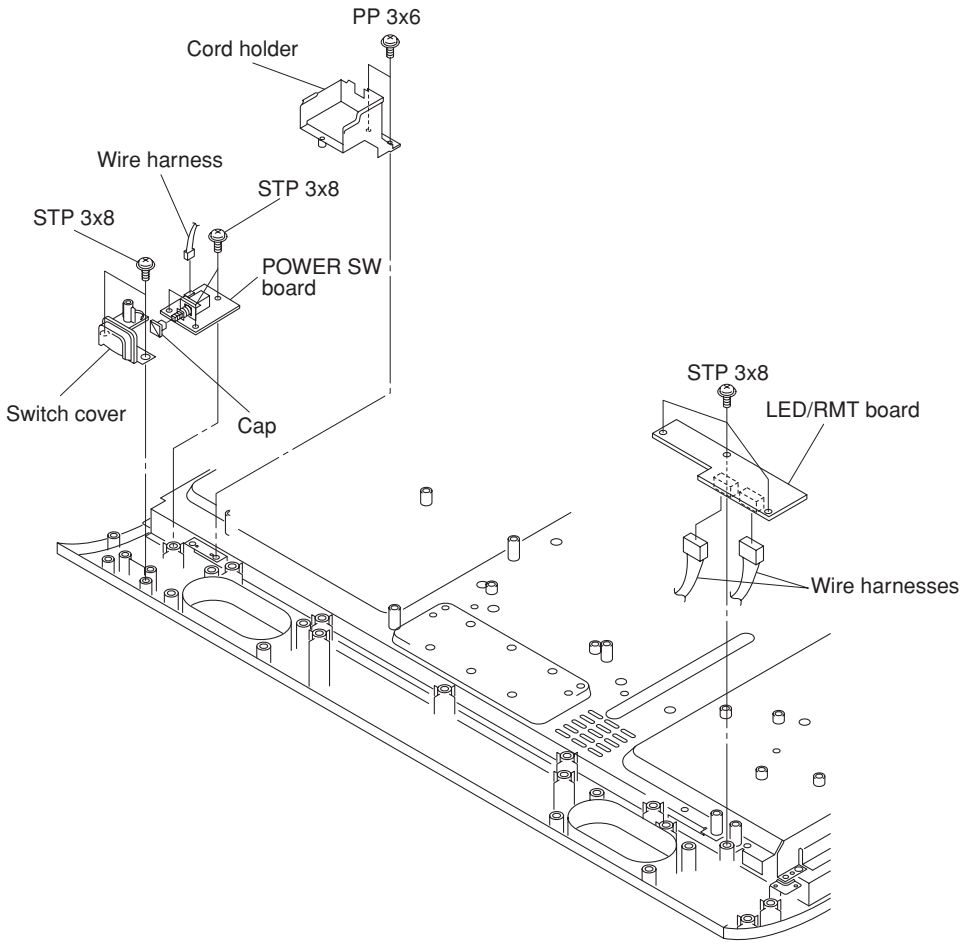
9. Removing the Front /AV board

1) Remove the back cover. (Refer to Item 1.)
2) Remove 1 screw (BIDT2 3x10 BZ).
3) Remove 2 screws (PP 3x6), then remove the front AV panel.
4) Remove 1 screw (BIDT2 3x10 BZ) and 1 screw (PP 3x6), then remove the rear AV panel.
5) Disconnect the 2 wire harnesses and 1 FFC from the Front/AV board.
6) Remove 2 screws (PP 3x6), then remove the wire holder and Front/AV board.



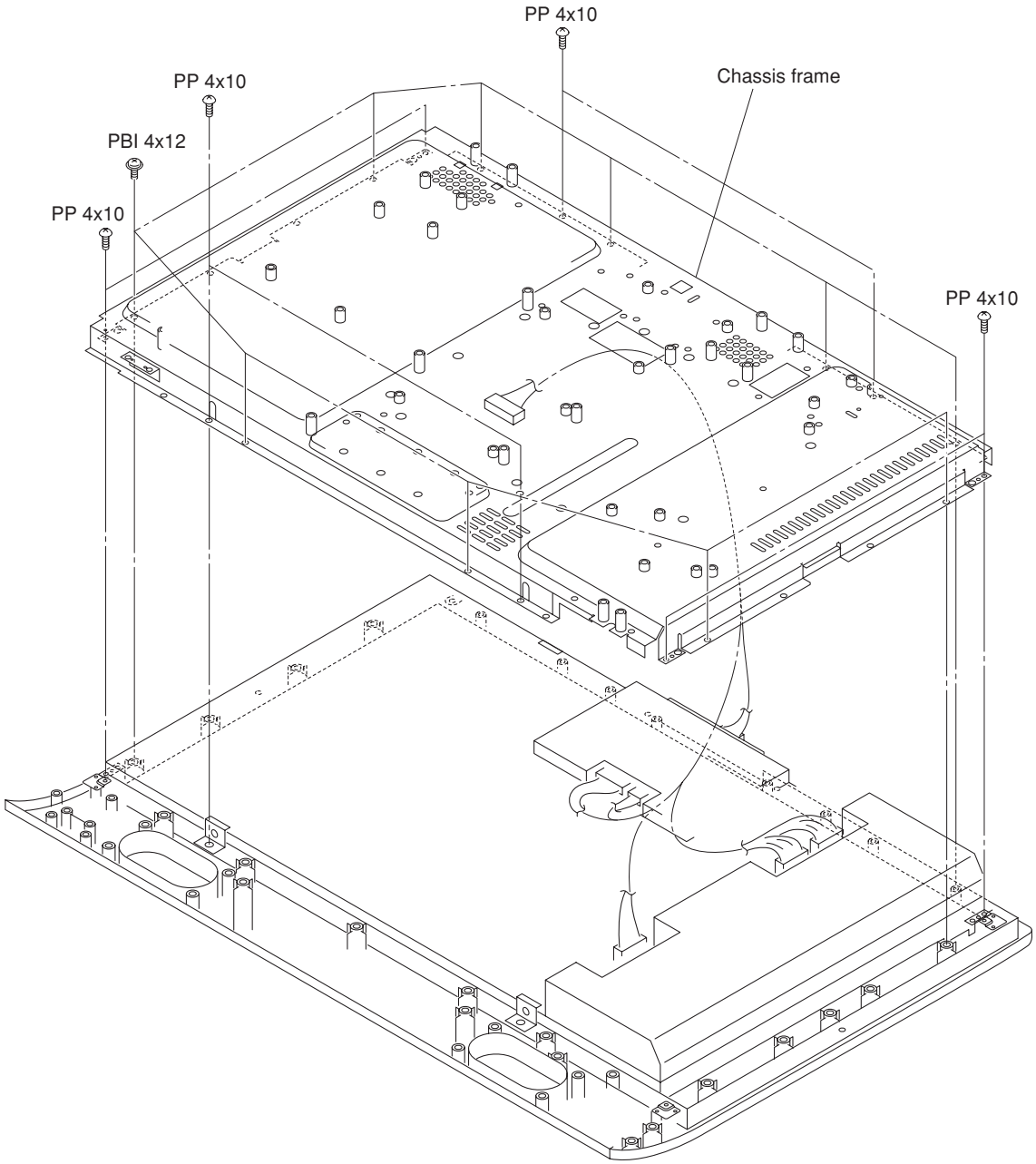
10. Removing the Power SW and LED/RMT boards

1) Remove the back cover. (Refer to Item 1.)
2) Remove 3 screws (STP 3x8), then remove the LED/RMT board.
3) Disconnect the 2 wire harnesses from the connector on the LED/RMT board.
4) Remove 2 screws (PP 3x6), then remove the cord holder.
5) Remove 2 screws (STP 3x8), then remove the switch cover and cap.
6) Disconnect the wire harness from the connector on the Power SW board.
7) Remove 3 screws (STP 3x8), then remove the Power SW board.



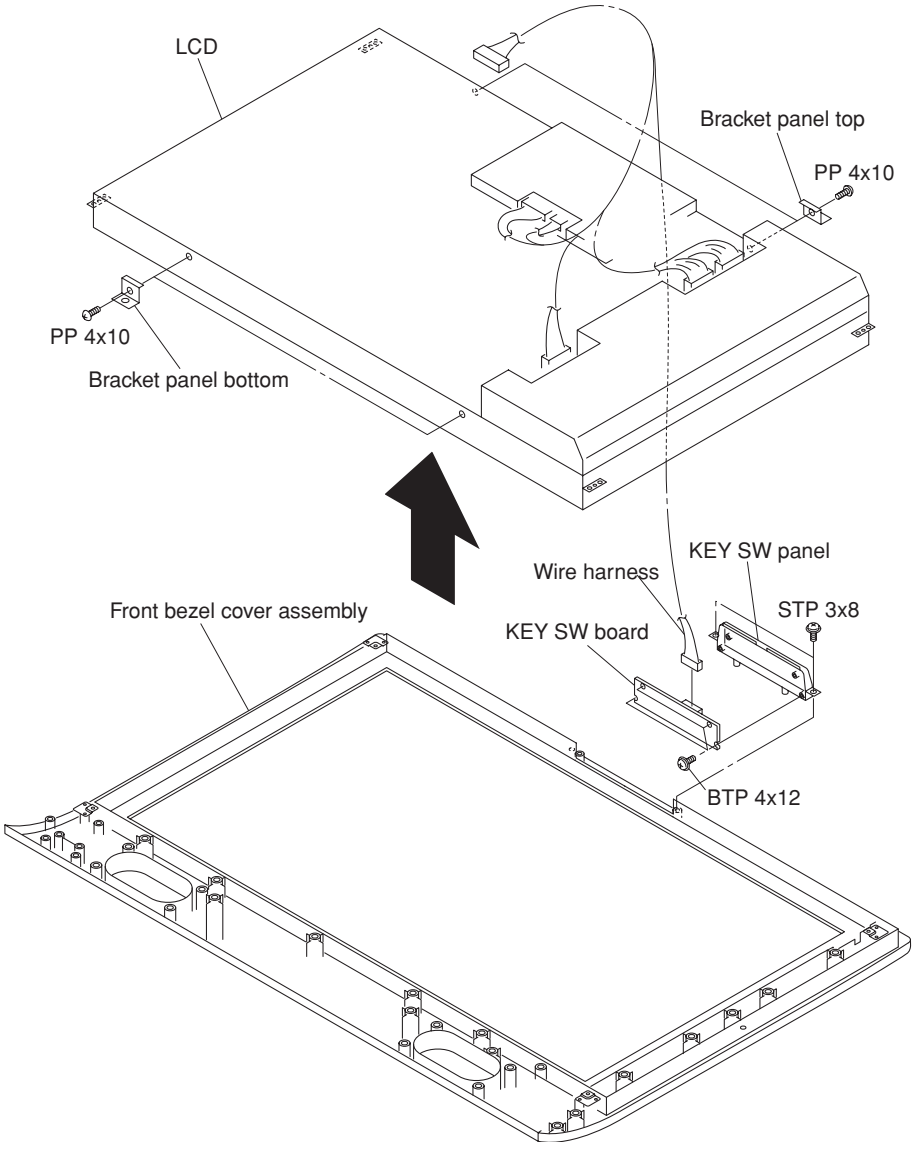
11. Removing the chassis frame

1) Remove the back cover. (Refer to Item 1.)
2) Remove the speakers. (Refer to Item 2.)
3) Remove the top shield bracket. (Refer to Item 3.)
4) Remove Power Module unit. (Refer to Item 4.)
5) Remove the Scaler board. (Refer to Item 5.)
6) Remove the D-Rewrite board and bracket. (Refer to Item 6.)
7) Remove the back plate. (Refer to Item 7.)
8) Remove the TU/AOUT, AV2 and Signal boards. (Refer to Item 8.)
9) Remove the Front/AV board. (Refer to Item 9.)
10) Remove the Power SW and LED/RMT boards. (Refer to Item 10.)
11) Remove 10 screws (PBI 4x12) and 8screws (PP 4x10), then remove the chassis frame.



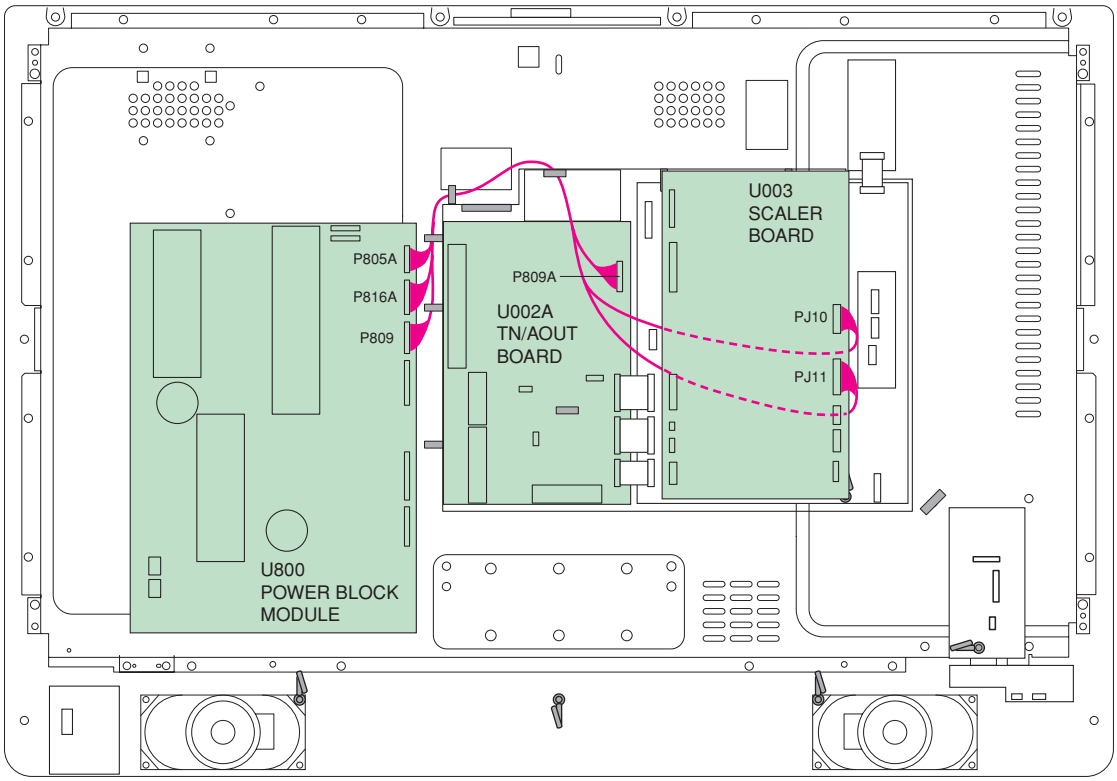
12. Removing the LCD and front bezel cover assembly

1) Remove the back cover. (Refer to Item 1.)
2) Remove the speakers. (Refer to Item 2.)
3) Remove the top shield bracket. (Refer to Item 3.)
4) Remove Power Module unit. (Refer to Item 4.)
5) Remove the Scaler board. (Refer to Item 5.)
6) Remove the D-Rewrite board and bracket. (Refer to Item 6.)
7) Remove the back plate. (Refer to Item 7.)
8) Remove the TU/AOUT,AV2 and Signal boards. (Refer to Item 8.)
9) Remove the Front/AV board. (Refer to Item 9.)
10) Remove the Power SW and LED/RMT boards. (Refer to Item 10.)
11) Remove the chassis frame. (Refer to Item 11.)
12) Remove 2 screws (STP 3x8), then remove the key SW panel.
13) Remove 2 screws (STP 3x8), then remove the Key SW board.
14) Disconnect the wire harness from the connector on the Key SW board.
15) Lift up the LCD slowly from the front bezel cover assembly toward to the arrow direction.
16) Remove 2 screws (PP 4x10), then remove the two bracket panels top.
17) Remove 2 screws (PP 4x10), then remove the two bracket panels bottom.



WIRING CONNECTION

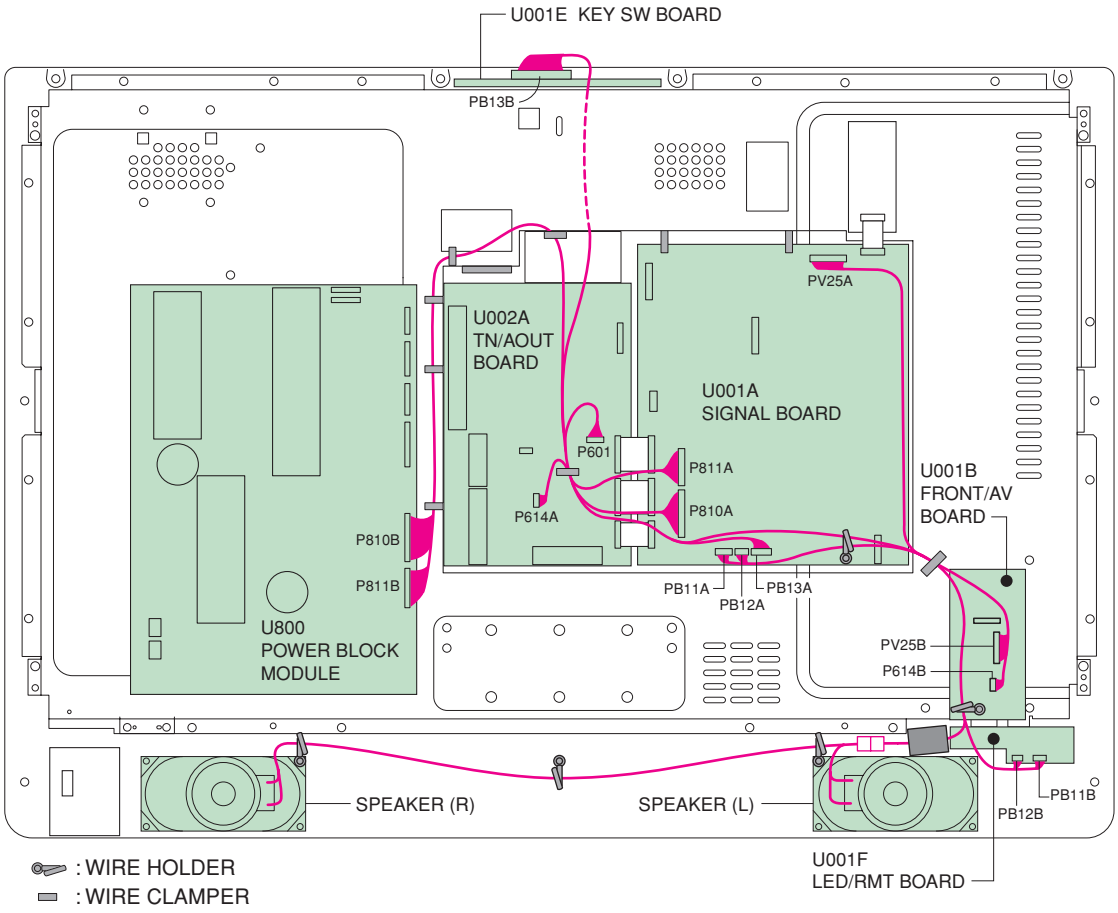
1. Power Block Module – TN/AOUT – SCALER



: WIRE HOLDER
: WIRE CLAMPER

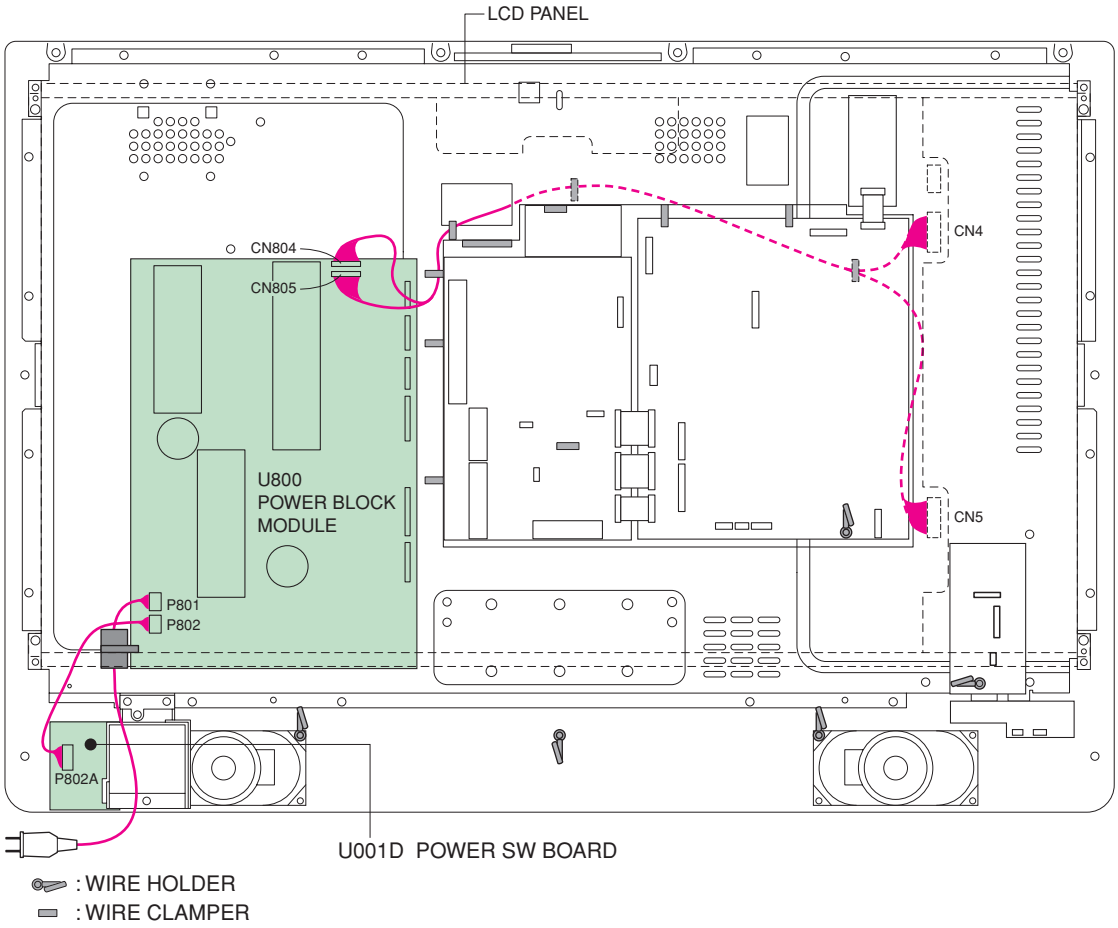
CONNECTOR (Board name)	Description
P805A (U800 POWER BLOCK MODULE) — PJ10 (U003 SCALER BOARD)	WIRE HARNESS, POW-SCALER
P816A (U800 POWER BLOCK MODULE) — PJ11 (U003 SCALER BOARD)	WIRE HARNESS, POW-SCALER
P809 (U800 POWER BLOCK MODULE) — P809A (U002A TN/AOUT BOARD)	WIRE HARNESS, POW-TN/AOUT

2. Power Block Module – TN/AOUT – SIGNAL – FRONT/AV – KEY SW – LED/RMT – SPEAKER



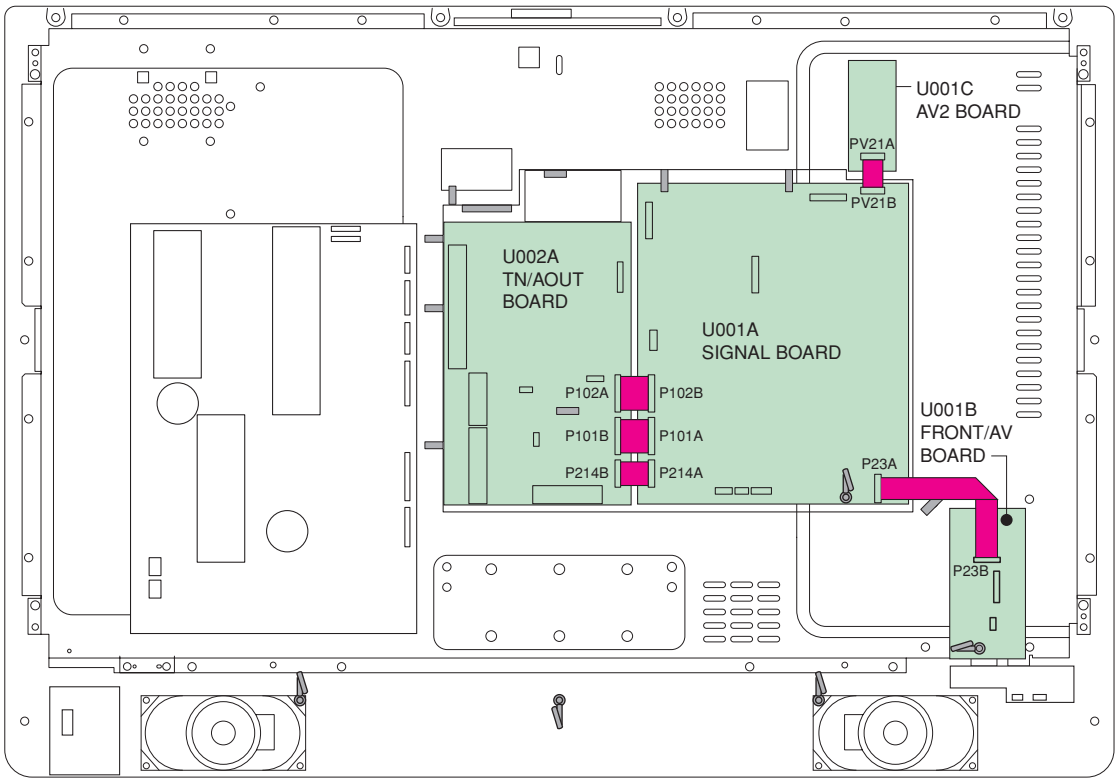
CONNECTOR (Board name)	Description
PV25A (U001A SIGNAL BOARD) — PV25B (U001B FRONT/AV BOARD)	WIRE HARNESS, SIG-FAV
PB11A (U001A SIGNAL BOARD) — PB11B (U001F LED/RMT BOARD)	WIRE HARNESS, SIG-LED-RMT
PB12A (U001A SIGNAL BOARD) — PB12B (U001F LED/RMT BOARD)	WIRE HARNESS, SIG-LED-RMT
PB13A (U001A SIGNAL BOARD) — PB13B (U001E KEY SW BOARD)	WIRE HARNESS, SIG-KEY SW
P601 (U002A TN/AOUT BOARD) — SPEAKER (L)/(R)	WIRE HARNESS, SPK-RELAYED
P614A (U002A TN/AOUT BOARD) — P614B (U001B FRONT/AV BOARD)	WIRE HARNESS, TN/AOUT-FAV
P811A (U001A SIGNAL BOARD) — P811B (U800 POWER BLOCK MODULE)	WIRE HARNESS, SIGNAL-POW
P810A (U001A SIGNAL BOARD) — P810B (U800 POWER BLOCK MODULE)	WIRE HARNESS, SIGNAL-POW

3. Power Block Module – LCD Panel



CONNECTOR (Board name)	Description
P802 (U800 POWER BLOCK MODULE) — P802A (U001D POWER SW BOARD)	WIRE HARNESS, POW-POW SW
P801 (U800 POWER BLOCK MODULE) — POWER CORD	POWER CORD
CN804 (U800 POWER BLOCK MODULE) — CN4 (PANEL)	WIRE HARNESS, PANEL-POW
CN805 (U800 POWER BLOCK MODULE) — CN5 (PANEL)	WIRE HARNESS, PANEL-POW

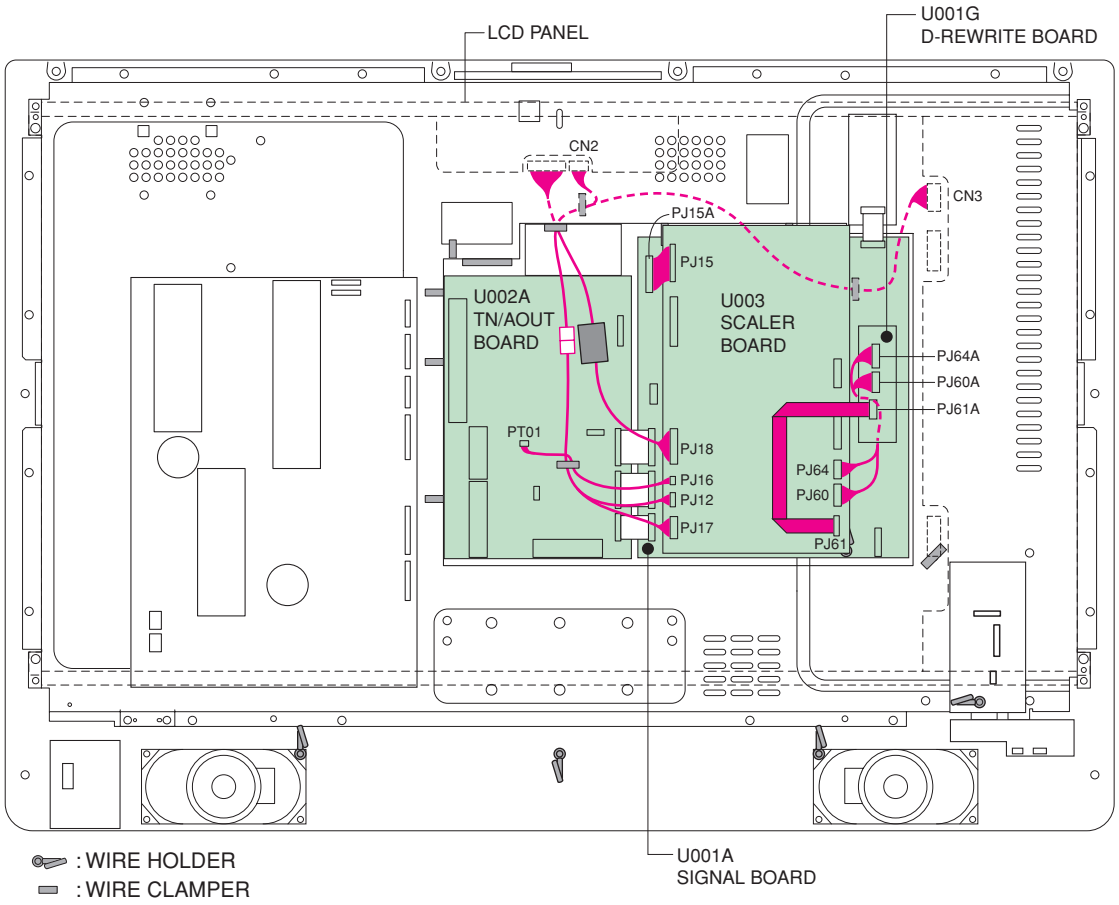
4. TN/AOUT – SIGNAL – AV2 – FRONT/AV



: WIRE HOLDER
: WIRE CLAMPER

CONNECTOR (Board name)	Description
P102A (U002A TN/AOUT BOARD) — P102B (U001A SIGNAL BOARD)	B-B CONNECTOR
P101B (U002A TN/AOUT BOARD) — P101A (U001A SIGNAL BOARD)	B-B CONNECTOR
P214B (U002A TN/AOUT BOARD) — P214A (U001A SIGNAL BOARD)	B-B CONNECTOR
PV21A (U001C AV2 BOARD) — PV21B (U001A SIGNAL BOARD)	B-B CONNECTOR
PV23B (U002A FRONT/AV BOARD) — PV23A (U001A SIGNAL BOARD)	FFC CABLE, P1.0-19P

5. LCD Panel – TN/AOUT – SCALER – SIGNAL – D-REWRITE

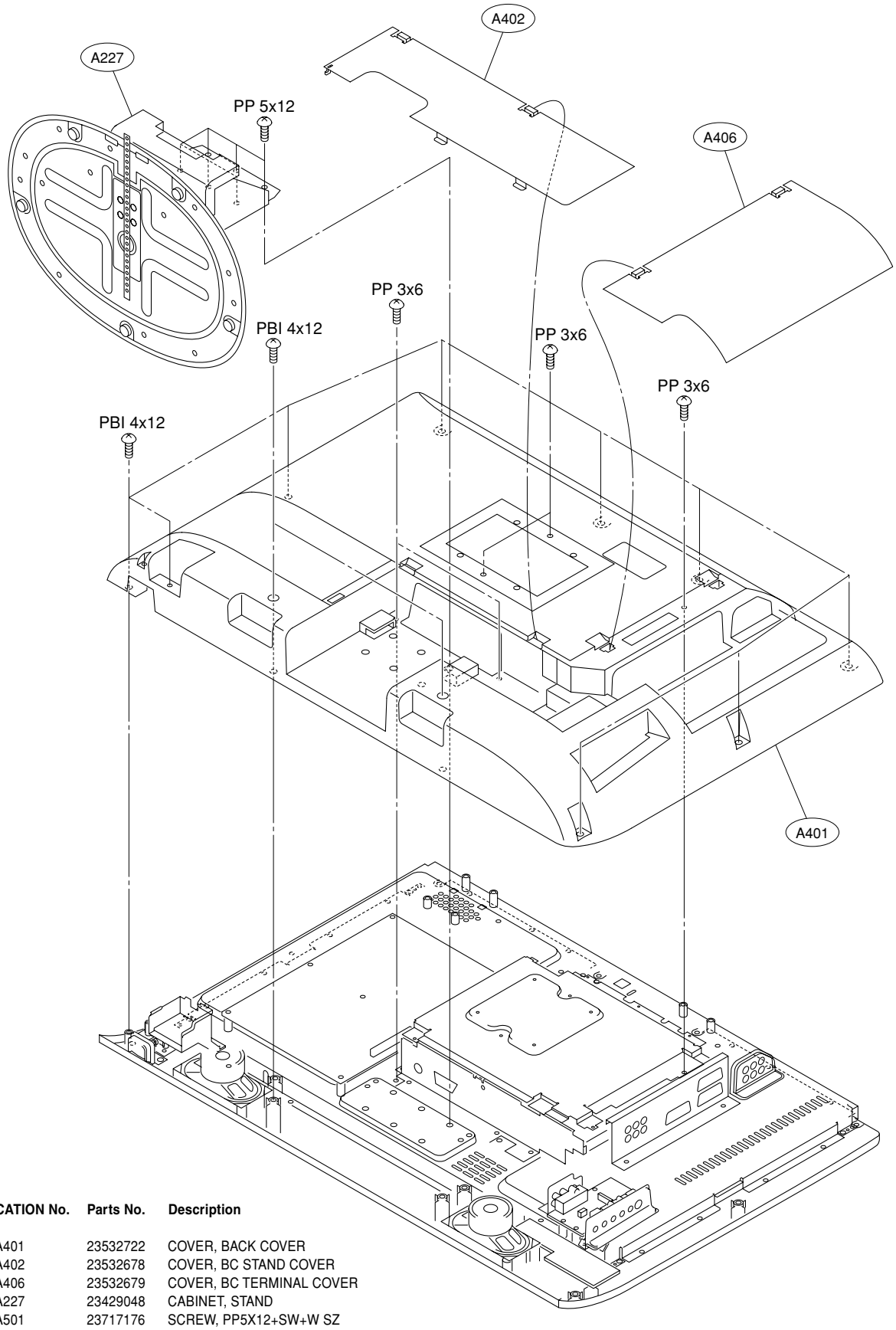


CONNECTOR (Board name)			Description
PJ16 (U003 SCALER BOARD)	—	PT01 (U002A TN/AOUT BOARD)	WIRE HARNESS, TN/AOUT-SCA
PJ12 (U003 SCALER BOARD)	—	CN2 (PANEL)	WIRE HARNESS, PANEL-SCA
PJ17 (U003 SCALER BOARD)	—	CN3 (PANEL)	WIRE HARNESS, PANEL-SCA
PJ15 (U003 SCALER BOARD)	—	PJ15A (U001A SIGNAL BOARD)	FFC CABLE, P1.0-25P
PJ18 (U003 SCALER BOARD)	—	LVDS CABLE	CABLE, LVDS 300MM LVDS
PJ61 (U003 SCALER BOARD)	—	PJ61A (U001G D-REWRITE BOARD)	FFC CABLE, P1.0-11P
PJ60 (U003 SCALER BOARD)	—	PJ60A (U001G D-REWRITE BOARD)	WIRE HARNESS, SCA-DREWRIT
PJ64 (U003 SCALER BOARD)	—	PJ64A (U001G D-REWRITE BOARD)	WIRE HARNESS, SIG-DREWRIT

MEMO

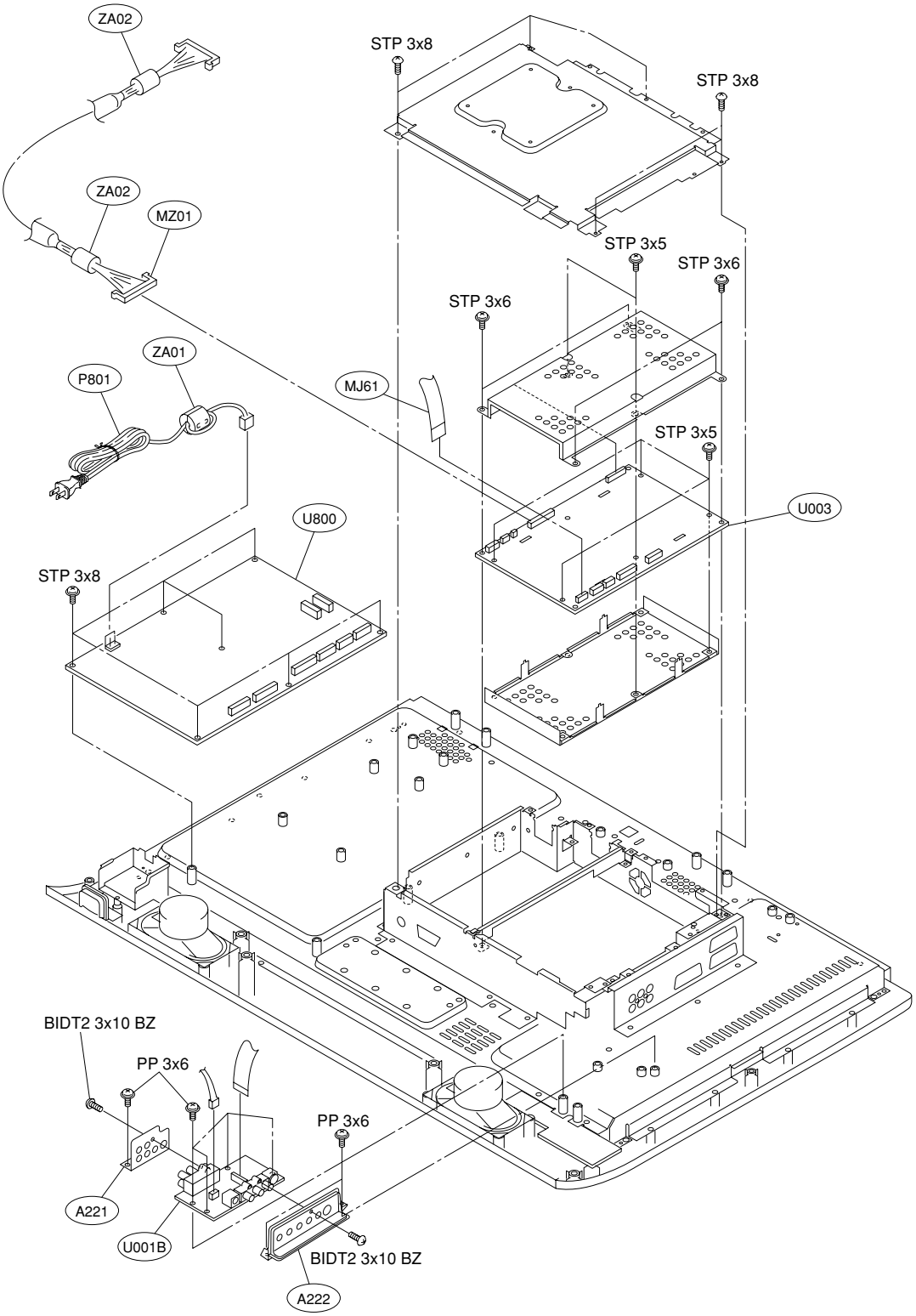
EXPLODED VIEWS

1. Cover Block



LOCATION No.	Parts No.	Description
A401	23532722	COVER, BACK COVER
A402	23532678	COVER, BC STAND COVER
A406	23532679	COVER, BC TERMINAL COVER
A227	23429048	CABINET, STAND
A501	23717176	SCREW, PP5X12+SW+W SZ
A502	23717175	SCREW, PP3X6+SW+W SZ
A505	23035004	SCREW, PBI4X12,SBN

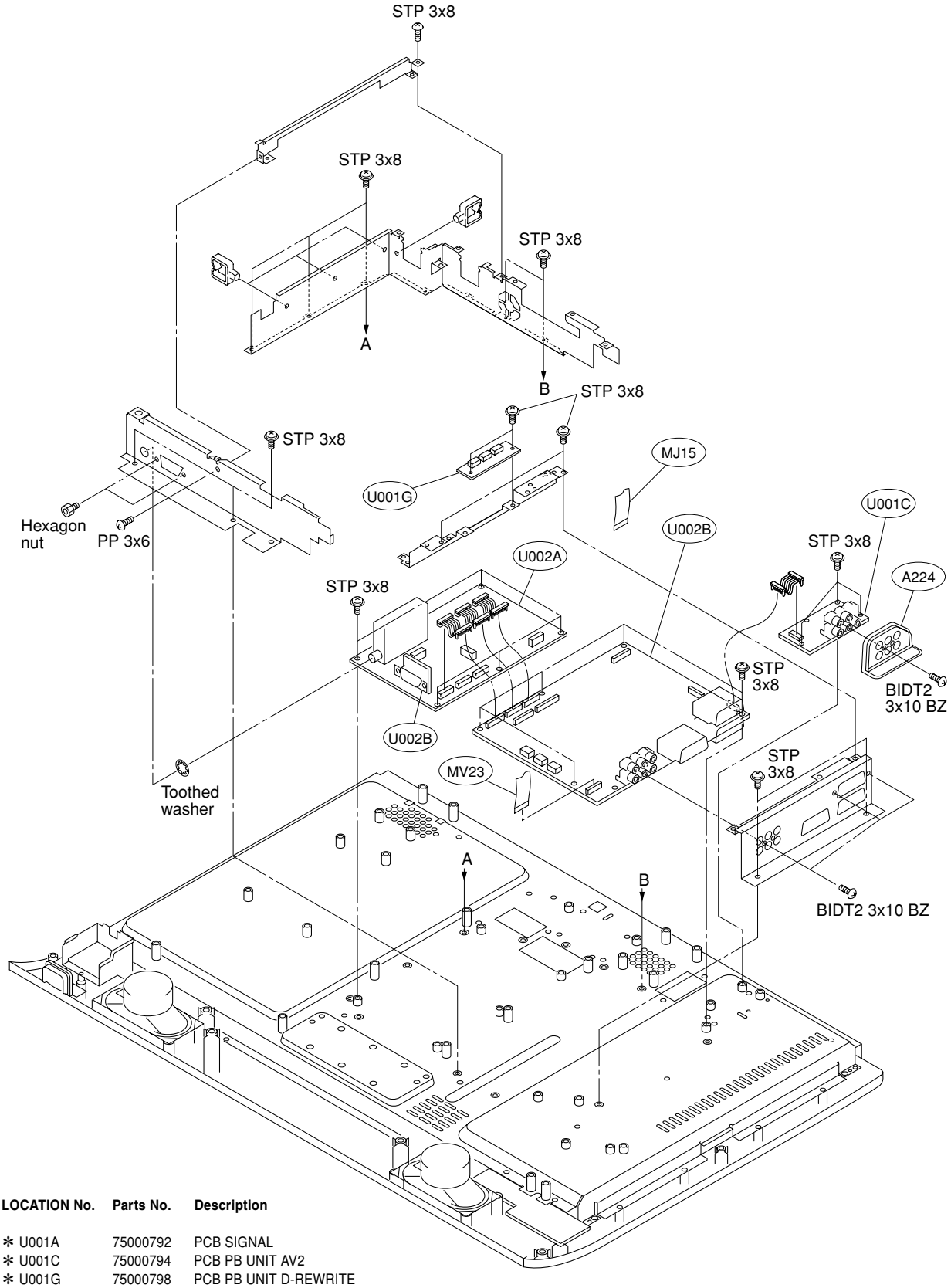
2. Chassis Block 1



LOCATION No.	Parts No.	Description
✻ U001B	75000793	PCB PB UNIT FRONT/AV
✻ U003	75000791	PCB SCALER
⚠ P801	23372208	POWER CORD, UK-HK-PSB 10A 250V (FOR 32WL46B)
⚠	23372011	POWER CORD, CEE, VOLEX (FOR 32WL46G)
A221	23940066	PIECE, REAR AV ASSY
A222	23940063	PIECE, FRONT AV ASSY

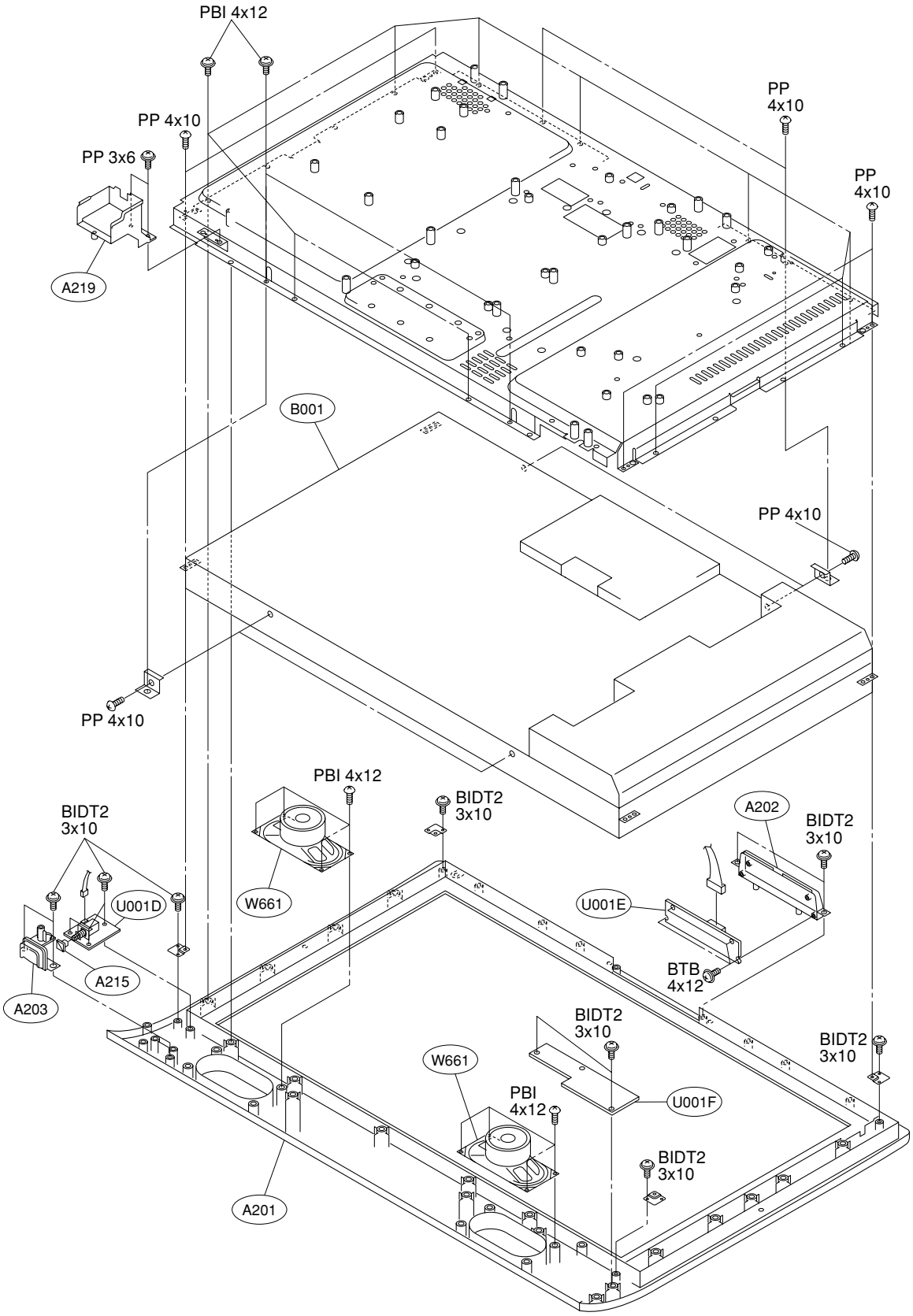
LOCATION No.	Parts No.	Description
✻⚠ U800	23122467	UNIT, POWER BLOCK MODULE
MJ61	23389212	FFC CABLE P1.0-11P,
ZA01	23103778	FERRITE CORE, TFE1008
ZA02	23103914	CORE, FERRITE CORE 15X22X7 TFE1015AD
A502	23717175	SCREW, PP3X6+SW+W SZ
A503	72471064	SCREW, BIDT2 3*10BZ

3. Chassis Block 2



LOCATION No.	Parts No.	Description
✻ U001A	75000792	PCB SIGNAL
✻ U001C	75000794	PCB PB UNIT AV2
✻ U001G	75000798	PCB PB UNIT D-REWRITE
✻ U002A	75000799	PCB PB UNIT TN/AOUT
✻ U002B	75000800	PCB PB UNIT PC INPUT
MJ15	23389211	FFC CABLE, P1.0-25P
MV23	23389213	FFC CABLE, P1.0-19P
A224	23940068	PIECE, TOP AV ASSY
A502	23717175	SCREW, PP3X6+SW+W SZ
A503	72471064	SCREW, BIDT2 3*10BZ
A505	23035004	SCREW, PBI4X12,SBN

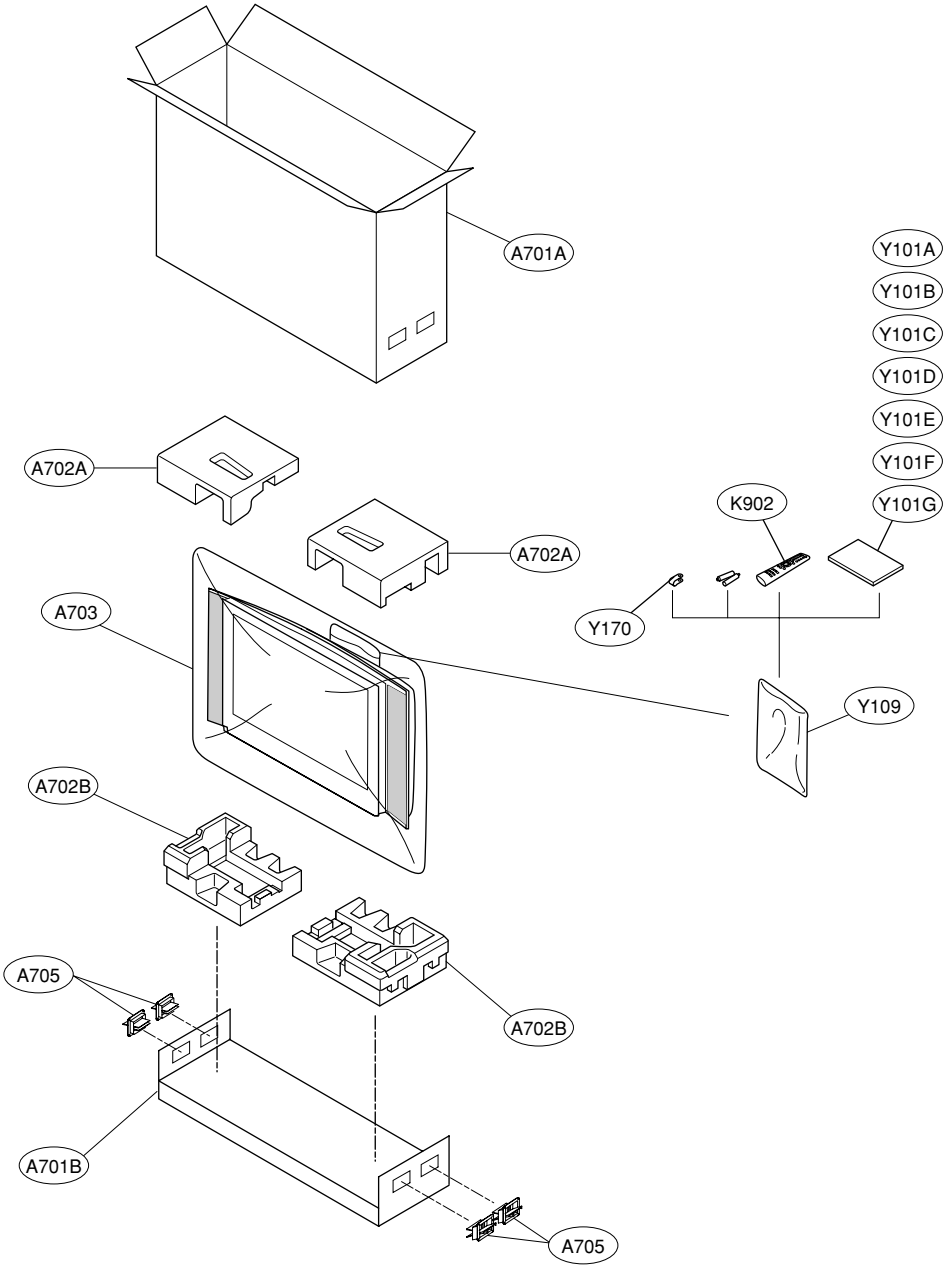
4. LCD and Front Bezel Block



LOCATION No.	Parts No.	Description
✻ U001D	75000795	PCB PB UNIT POW SW
✻ U001E	75000796	PCB PB UNIT KEY SW
✻ U001F	75000797	PCB PB UNIT LED/RMT
A201	23532720	COVER, FRONT BEZEL ASSY
A202	23940073	PIECE, PIECE KEY ASSY
A219	23528375	HOLDER, HOLDER P CORD PAL
⚠ B001	23301560	LCD PANEL, 03SHARP32 32L400V

LOCATION No.	Parts No.	Description
W661	23351156	SPEAKER, SPK1410AM, 60X120 8-OHM 10W
A203	23940025	PIECE, PIECE POWER ASSY
A215	23940043	PIECE, CAP P SWITCH
A502	23717175	SCREW, PP3X6+SW+W SZ
A503	72471064	SCREW, BIDT2 3*10BZ
A505	23035004	SCREW, PBI4X12,SBN

PACKING DISASSEMBLY



LOCATION No.	Parts No.	Description
A701A	23067683	CARTON, TOP CASE (FOR 32WL46B)
	23067684	CARTON, TOP CASE (FOR 32WL46G)
A701B	23067688	CARTON, BOTTOM CASE
A702A	23946764	PACKING, TOP PACKING
A702B	23946765	PACKING, BOTTOM PACKING
A703	23945143	BAG, PROTECTIVE
A705	23518043	PACKING, JOINT
⚠ K902	23306469	REMOCON HAND UNIT, CT-90126
⚠ Y101A	23566309	OWNERS MANUAL, E LCD
⚠ Y101B	23566310	OWNERS MANUAL, F LCD (FOR 32WL46G)
⚠ Y101C	23566311	OWNERS MANUAL, DEUT G LCD (FOR 32WL46G)
⚠ Y101D	23566312	OWNERS MANUAL, S LCD (FOR 32WL46G)
⚠ Y101E	23566313	OWNERS MANUAL, I LCD (FOR 32WL46G)
⚠ Y101F	23566314	OWNERS MANUAL, NEDR O LCD (FOR 32WL46G)
⚠ Y101G	23566315	OWNERS MANUAL, P LCD (FOR 32WL46G)
Y109	23945015	BAG, POLYETHYLENE COVER 250X400
Y170	23845800	WIRE HOLDER, NYLON66 D6.8

MEMO

CHASSIS AND CABINET REPLACEMENT PARTS LIST

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE. Do not degrade the safety of the receiver through improper servicing.

NOTICE:

- *The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.*
- *The PC board assembly with ∗ mark is no longer available after the end of the production.*

Model : 32WL46B/32WL46G

Capacitors	CD	: Ceramic Disk	PF	: Plastic Film	EL	: Electrolytic
Resistors	CF	: Carbon Film	CC	: Carbon Composition	MF	: Metal Film
	OMF	: Oxide Metal Film	VR	: Variable Resistor	FR	: Fusible Resistor

(All CD and PF capacitors are ±5%, 50V and all resistors, ±5%, 1/6W unless otherwise noted.)

Location No.	Parts No.	Description
#1 : [32WL46B]		
#2 : [32WL46G]		
CAPACITORS		
C101	24109102	CERAMIC CHIP, 50V B 1000PF K
C102	24793221	ELECTROLYTIC, 10V 220UF M
C103	24109102	CERAMIC CHIP, 50V B 1000PF K
C104	24797479	ELECTROLYTIC, 50V 4.7UF M
C105	24617009	ELECTROLYTIC, 10V 330UF M
C106	24109102	CERAMIC CHIP, 50V B 1000PF K
C107	24109103	CERAMIC CHIP, 50V B 0.01UF K
C120	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C121	24763101	ELECTROLYTIC, 16V 100UF M
C150	24109103	CERAMIC CHIP, 50V B 0.01UF K
C151	24109103	CERAMIC CHIP, 50V B 0.01UF K
C152	24109103	CERAMIC CHIP, 50V B 0.01UF K
C160	24590224	PLASTIC FILM, 50V 0.22UF J
C271	24206229	ELECTROLYTIC, 50V 2.2UF M 7L 3A
C280	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
C281	24092616	CERAMIC CHIP, 16V B 0.33UF K
C282	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C283	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
C501	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C502	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C503	24203470	ELECTROLYTIC, 16V 47UF M 7L 3A
C504	24109103	CERAMIC CHIP, 50V B 0.01UF K
C505	24203470	ELECTROLYTIC, 16V 47UF M 7L 3A
C506	24109103	CERAMIC CHIP, 50V B 0.01UF K
C507	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C508	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C509	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C511	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C512	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C514	24203470	ELECTROLYTIC, 16V 47UF M 7L 3A
C516	24105110	CERAMIC CHIP, 50V CH 11PF J
C517	24206478	ELECTROLYTIC, 50V 0.47UF M 7L 3A
C519	24206479	ELECTROLYTIC, 50V 4.7UF M 7L 3A
C521	24092733	CERAMIC CHIP, 50V B 0.022UF K
C522	24109103	CERAMIC CHIP, 50V B 0.01UF K
C523	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C524	24109103	CERAMIC CHIP, 50V B 0.01UF K
C525	24503041	PLASTIC FILM , 63V 0.1UF J
C526	24109103	CERAMIC CHIP, 50V B 0.01UF K
C527	24206229	ELECTROLYTIC, 50V 2.2UF M 7L 3A
C601	24092730	CERAMIC CHIP, 16V B 0.1UF K
C603	24092730	CERAMIC CHIP, 16V B 0.1UF K

Location No.	Parts No.	Description
C604	24092611	CERAMIC CHIP, 6.3V B 2.2UF K
C605	24109102	CERAMIC CHIP, 50V B 1000PF K
C606	24109102	CERAMIC CHIP, 50V B 1000PF K
C608	24092730	CERAMIC CHIP, 16V B 0.1UF K
C610	24092731	CERAMIC CHIP, 16V B 1UF K
C611	24092730	CERAMIC CHIP, 16V B 0.1UF K
C612	24761102	ELECTROLYTIC CE04G, 6.3V 1000UF M
C613	24092731	CERAMIC CHIP, 16V B 1UF K
C614	24092730	CERAMIC CHIP, 16V B 0.1UF K
C615	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
C620	24092463	CERAMIC CHIP, 16V B 0.22UF K
C621	24092730	CERAMIC CHIP, 16V B 0.1UF K
C622	24092463	CERAMIC CHIP, 16V B 0.22UF K
C623	24092463	CERAMIC CHIP, 16V B 0.22UF K
C624	24092730	CERAMIC CHIP, 16V B 0.1UF K
C625	24092463	CERAMIC CHIP, 16V B 0.22UF K
C627	24092730	CERAMIC CHIP, 16V B 0.1UF K
C629	24206010	ELECTROLYTIC, 50V 1.0UF M 7L 3A
C630	24092730	CERAMIC CHIP, 16V B 0.1UF K
C631	24092463	CERAMIC CHIP, 16V B 0.22UF K
C632	24092463	CERAMIC CHIP, 16V B 0.22UF K
C635	24763221	ELECTROLYTIC, 16V 220UF M
C636	24763221	ELECTROLYTIC, 16V 220UF M
C640	24762102	ELECTROLYTIC, 04G 10V 1000UF M
C641	24203470	ELECTROLYTIC, 16V 47UF M 7L 3A
C642	24203470	ELECTROLYTIC, 16V 47UF M 7L 3A
C645	24815103	CERAMIC CHIP, 50V B 10000PF K
C646	24092738	CERAMIC CHIP, 25V B 0.47UF K
C647	24092738	CERAMIC CHIP, 25V B 0.47UF K
C648	24285104	CERAMIC CHIP, 50V B 0.1UF K
C649	24285104	CERAMIC CHIP, 50V B 0.1UF K
C653	24092538	CERAMIC CHIP, 10V F 1UF Z
C661	24109102	CERAMIC CHIP, 50V B 1000PF K
C662	24109102	CERAMIC CHIP, 50V B 1000PF K
C663	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
C664	24203220	ELECTROLYTIC, 16V 22UF M 7L 3A
C665	24206010	ELECTROLYTIC, 50V 1.0UF M 7L 3A
C666	24206010	ELECTROLYTIC, 50V 1.0UF M 7L 3A
C667	24092515	CERAMIC CHIP, 16V F 4.7UF Z
C668	24092515	CERAMIC CHIP, 16V F 4.7UF Z
C669	24105221	CERAMIC CHIP, 50V CH 220PF J
C672	24092726	CERAMIC CHIP CK733B 16V 2,200,000PFK
C673	24092726	CERAMIC CHIP CK733B 16V 2,200,000PFK
C677	24109681	CERAMIC CHIP, 50V B 680PF K
C678	24109681	CERAMIC CHIP, 50V B 680PF K
C679	24105221	CERAMIC CHIP, 50V CH 220PF J

Location No.	Parts No.	Description
C4222	24092538	CERAMIC CHIP, 10V F 1UF Z
C4311	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C4312	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C4313	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C4406	24109103	CERAMIC CHIP, 50V B 0.01UF K
C4407	24109103	CERAMIC CHIP, 50V B 0.01UF K
C4408	24092538	CERAMIC CHIP, 10V F 1UF Z
C4409	24794331	ELECTROLYTIC, 16V 330UF M
C4410	24109103	CERAMIC CHIP, 50V B 0.01UF K
CA03	24105180	CERAMIC CHIP, 50V CH 18PF J
CA04	24105180	CERAMIC CHIP, 50V CH 18PF J
CA13	24105101	CERAMIC CHIP, 50V CH 100PF J
CA14	24105101	CERAMIC CHIP, 50V CH 100PF J
CA15	24203470	ELECTROLYTIC, 16V 47UF M 7L 3A
CA34	24109102	CERAMIC CHIP, 50V B 1000PF K
CA42	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
CA43	24109103	CERAMIC CHIP, 50V B 0.01UF K
CA44	24109103	CERAMIC CHIP, 50V B 0.01UF K
CA45	24109103	CERAMIC CHIP, 50V B 0.01UF K
CA68	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CA69	24100103	CERAMIC CHIP, 50V F 0.01UF Z
CB01	24794470	ELECTROLYTIC, 16V 47UF M
CB04	24092538	CERAMIC CHIP, 10V F 1UF Z
CB05	24109222	CERAMIC CHIP, 50V B 2200PF K
CB06	24105561	CERAMIC CHIP, 50V CH 560PF J
CB07	24109332	CERAMIC CHIP, 50V B 3300PF K
CB40	24092538	CERAMIC CHIP, 10V F 1UF Z
CB41	24109222	CERAMIC CHIP, 50V B 2200PF K
CB42	24105561	CERAMIC CHIP, 50V CH 560PF J
CB43	24109332	CERAMIC CHIP, 50V B 3300PF K
CB90	24100103	CERAMIC CHIP, 50V F 0.01UF Z
CC01	24109103	CERAMIC CHIP, 50V B 0.01UF K
CC02	24105220	CERAMIC CHIP, 50V CH 22PF J
CC04	24105220	CERAMIC CHIP, 50V CH 22PF J
CC08	24109103	CERAMIC CHIP, 50V B 0.01UF K
CC11	24109102	CERAMIC CHIP, 50V B 1000PF K
CC12	24109102	CERAMIC CHIP, 50V B 1000PF K
CC20	24105220	CERAMIC CHIP, 50V CH 22PF J
CC21	24109102	CERAMIC CHIP, 50V B 1000PF K
CC24	24109103	CERAMIC CHIP, 50V B 0.01UF K
CC25	24109103	CERAMIC CHIP, 50V B 0.01UF K
CC31	24109102	CERAMIC CHIP, 50V B 1000PF K
CC40	24109102	CERAMIC CHIP, 50V B 1000PF K
CC41	24109102	CERAMIC CHIP, 50V B 1000PF K
CC59	24109102	CERAMIC CHIP, 50V B 1000PF K
CC60	24109223	CERAMIC CHIP, 25V B 0.022UF K
CC61	24109223	CERAMIC CHIP, 25V B 0.022UF K
CC62	24109102	CERAMIC CHIP, 50V B 1000PF K
CC63	24109102	CERAMIC CHIP, 50V B 1000PF K
CC64	24109102	CERAMIC CHIP, 50V B 1000PF K
CC65	24109102	CERAMIC CHIP, 50V B 1000PF K
CC66	24109102	CERAMIC CHIP, 50V B 1000PF K
CC67	24109102	CERAMIC CHIP, 50V B 1000PF K
CC68	24109102	CERAMIC CHIP, 50V B 1000PF K
CC69	24109102	CERAMIC CHIP, 50V B 1000PF K
CC70	24109102	CERAMIC CHIP, 50V B 1000PF K
CC71	24109102	CERAMIC CHIP, 50V B 1000PF K
CC72	24109102	CERAMIC CHIP, 50V B 1000PF K
CC73	24109102	CERAMIC CHIP, 50V B 1000PF K
CC74	24109102	CERAMIC CHIP, 50V B 1000PF K
CC75	24109102	CERAMIC CHIP, 50V B 1000PF K
CC76	24109102	CERAMIC CHIP, 50V B 1000PF K
CC77	24109102	CERAMIC CHIP, 50V B 1000PF K
CC78	24109102	CERAMIC CHIP, 50V B 1000PF K
CC79	24109102	CERAMIC CHIP, 50V B 1000PF K
CC80	24109102	CERAMIC CHIP, 50V B 1000PF K
CC81	24109102	CERAMIC CHIP, 50V B 1000PF K
CC82	24109102	CERAMIC CHIP, 50V B 1000PF K
CD01	24092726	CERAMIC CHIP CK733B 16V 2,200,000PFK
CD03	24109332	CERAMIC CHIP, 50V B 3300PF K
CD05	24109333	CERAMIC CHIP CK73B 25V 33000PFK
CD10	24092542	CERAMIC CHIP CK733 B 16V 1.0UF K
CD12	24092542	CERAMIC CHIP CK733 B 16V 1.0UF K
CD13	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CD14	24092726	CERAMIC CHIP CK733B 16V 2,200,000PFK
CD15	24092726	CERAMIC CHIP CK733B 16V 2,200,000PFK

Location No.	Parts No.	Description
CD16	24109333	CERAMIC CHIP CK73B 25V 33000PFK
CD18	24109332	CERAMIC CHIP, 50V B 3300PF K
CD20	24092726	CERAMIC CHIP CK733B 16V 2,200,000PFK
CF34	24092538	CERAMIC CHIP, 10V F 1UF Z
CF38	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CF39	24109103	CERAMIC CHIP, 50V B 0.01UF K
CS01	24092538	CERAMIC CHIP, 10V F 1UF Z
CS02	24092538	CERAMIC CHIP, 10V F 1UF Z
CS03	24092538	CERAMIC CHIP, 10V F 1UF Z
CS04	24092538	CERAMIC CHIP, 10V F 1UF Z
CS05	24092538	CERAMIC CHIP, 10V F 1UF Z
CS06	24092538	CERAMIC CHIP, 10V F 1UF Z
CS07	24092538	CERAMIC CHIP, 10V F 1UF Z
CS08	24092538	CERAMIC CHIP, 10V F 1UF Z
CS09	24092538	CERAMIC CHIP, 10V F 1UF Z
CS10	24092538	CERAMIC CHIP, 10V F 1UF Z
CS11	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CS12	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CS13	24092731	CERAMIC CHIP, 16V B 1UF K
CS14	24092731	CERAMIC CHIP, 16V B 1UF K
CS15	24092538	CERAMIC CHIP, 10V F 1UF Z
CS16	24092538	CERAMIC CHIP, 10V F 1UF Z
CS18	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CS19	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CS20	24092573	CERAMIC CHIP, 16V B 0.47UF K
CS24	24092538	CERAMIC CHIP, 10V F 1UF Z
CS25	24092538	CERAMIC CHIP, 10V F 1UF Z
CS26	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CS27	24092515	CERAMIC CHIP, 16V F 4.7UF Z
CS28	24092515	CERAMIC CHIP, 16V F 4.7UF Z
CS29	24092515	CERAMIC CHIP, 16V F 4.7UF Z
CS30	24092515	CERAMIC CHIP, 16V F 4.7UF Z
CS33	24763221	ELECTROLYTIC, 16V 220UF M
CS37	24092538	CERAMIC CHIP, 10V F 1UF Z
CS38	24092538	CERAMIC CHIP, 10V F 1UF Z
CS39	24092573	CERAMIC CHIP, 16V B 0.47UF K
CS40	24202101	ELECTROLYTIC, 04W 10V 100UF M 7L 3A
CS43	24092726	CERAMIC CHIP CK733B 16V 2,200,000PFK
CS44	24092726	CERAMIC CHIP CK733B 16V 2,200,000PFK
CS45	24092726	CERAMIC CHIP CK733B 16V 2,200,000PFK
CS46	24092726	CERAMIC CHIP CK733B 16V 2,200,000PFK
CS51	24092726	CERAMIC CHIP CK733B 16V 2,200,000PFK
CS63	24092515	CERAMIC CHIP, 16V F 4.7UF Z
CS64	24092538	CERAMIC CHIP, 10V F 1UF Z
CS65	24092538	CERAMIC CHIP, 10V F 1UF Z
CS501	24092731	CERAMIC CHIP, 16V B 1UF K
CS502	24092726	CERAMIC CHIP CK733B 16V 2,200,000PFK
CS503	24092731	CERAMIC CHIP, 16V B 1UF K
CS504	24105101	CERAMIC CHIP, 50V CH 100PF J
CS505	24105101	CERAMIC CHIP, 50V CH 100PF J
CS506	24092726	CERAMIC CHIP CK733B 16V 2,200,000PFK
CS507	24206339	ELECTROLYTIC, 50V 3.3UF M 7L 3A
CS508	24206479	ELECTROLYTIC, 50V 4.7UF M 7L 3A
CS509	24092542	CERAMIC CHIP CK733 B 16V 1.0UF K
CS510	24092542	CERAMIC CHIP CK733 B 16V 1.0UF K
CS511	24105101	CERAMIC CHIP, 50V CH 100PF J
CS512	24109103	CERAMIC CHIP, 50V B 0.01UF K
CV07	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV08	24794471	ELECTROLYTIC, 16V 470UF M
CV10	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CV11	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CV12	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV13	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
CV14	24109103	CERAMIC CHIP, 50V B 0.01UF K
CV23	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
CV24	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV25	24203470	ELECTROLYTIC, 16V 47UF M 7L 3A
CV27	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CV28	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CV35	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV36	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV39	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
CV40	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV41	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV50	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
CV51	24085970	ELECTROLYTIC, NONPOLAR, 16V 10UF M 7L

Location No.	Parts No.	Description
CV52	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CV53	24092538	CERAMIC CHIP, 10V F 1UF Z
CV54	24092538	CERAMIC CHIP, 10V F 1UF Z
CV55	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV64	24794471	ELECTROLYTIC, 16V 470UF M
CV65	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
CV66	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
CV67	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
CV68	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV69	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV70	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
CV71	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV72	24092538	CERAMIC CHIP, 10V F 1UF Z
CV73	24092538	CERAMIC CHIP, 10V F 1UF Z
CV74	24092538	CERAMIC CHIP, 10V F 1UF Z
CV75	24092538	CERAMIC CHIP, 10V F 1UF Z
CV76	24092538	CERAMIC CHIP, 10V F 1UF Z
CV77	24092538	CERAMIC CHIP, 10V F 1UF Z
CV78	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV81	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV82	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV93	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV121	24109103	CERAMIC CHIP, 50V B 0.01UF K
CV128	24109103	CERAMIC CHIP, 50V B 0.01UF K
CV238	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV244	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV245	24092538	CERAMIC CHIP, 10V F 1UF Z
CV246	24092538	CERAMIC CHIP, 10V F 1UF Z
CV247	24092538	CERAMIC CHIP, 10V F 1UF Z
CV252	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV253	24092538	CERAMIC CHIP, 10V F 1UF Z
CV254	24092538	CERAMIC CHIP, 10V F 1UF Z
CV255	24092538	CERAMIC CHIP, 10V F 1UF Z
CV256	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV257	24794471	ELECTROLYTIC, 16V 470UF M
CV258	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CV259	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV261	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV263	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV265	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
CV276	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
CV280	24092538	CERAMIC CHIP, 10V F 1UF Z
CV281	24092538	CERAMIC CHIP, 10V F 1UF Z
CV282	24092538	CERAMIC CHIP, 10V F 1UF Z
CV283	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV286	24092538	CERAMIC CHIP, 10V F 1UF Z
CV287	24092538	CERAMIC CHIP, 10V F 1UF Z
CV288	24092538	CERAMIC CHIP, 10V F 1UF Z
CV293	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CY650	24591102	PLASTIC FILM, 50V 1000PF J
CZ01	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ02	24109103	CERAMIC CHIP, 50V B 0.01UF K
CZ03	24109103	CERAMIC CHIP, 50V B 0.01UF K
CZ04	24109103	CERAMIC CHIP, 50V B 0.01UF K
CZ05	24109103	CERAMIC CHIP, 50V B 0.01UF K
CZ06	24105102	CERAMIC CHIP, 25V CH 1000PF J
CZ07	24109103	CERAMIC CHIP, 50V B 0.01UF K
CZ09	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
CZ10	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ13	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ14	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ21	24203220	ELECTROLYTIC, 16V 22UF M 7L 3A
CZ22	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CZ23	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CZ24	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
CZ25	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
CZ26	24100103	CERAMIC CHIP, 50V F 0.01UF Z
CZ27	24100103	CERAMIC CHIP, 50V F 0.01UF Z
CZ28	24105101	CERAMIC CHIP, 50V CH 100PF J
CZ29	24105101	CERAMIC CHIP, 50V CH 100PF J
CZ30	24105151	CERAMIC CHIP, 50V CH 150PF J
CZ31	24092731	CERAMIC CHIP, 16V B 1UF K
CZ32	24109102	CERAMIC CHIP, 50V B 1000PF K
CZ34	24105330	CERAMIC CHIP, 50V CH 33PF J
CZ35	24105181	CERAMIC CHIP, 50V CH 180PF J
CZ36	24100104	CERAMIC CHIP, 25V F 0.1UF Z

Location No.	Parts No.	Description
CZ37	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ38	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ39	24105181	CERAMIC CHIP, 50V CH 180PF J
CZ40	24105560	CERAMIC CHIP, 50V CH 56PF J
CZ41	24105270	CERAMIC CHIP, 50V CH 27PF J
CZ42	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ43	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ44	24109103	CERAMIC CHIP, 50V B 0.01UF K
CZ45	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ46	24109103	CERAMIC CHIP, 50V B 0.01UF K
CZ47	24109103	CERAMIC CHIP, 50V B 0.01UF K
CZ48	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ49	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ51	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ52	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ53	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ54	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ55	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ56	24105330	CERAMIC CHIP, 50V CH 33PF J
CZ57	24105330	CERAMIC CHIP, 50V CH 33PF J
CZ58	24105120	CERAMIC CHIP, 50V CH 12PF J
CZ59	24105120	CERAMIC CHIP, 50V CH 12PF J
CZ60	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ61	24105620	CERAMIC CHIP, 50V CH 62PF J
CZ62	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ63	24105821	CERAMIC CHIP, 25V CH 820PF J
CZ64	24105561	CERAMIC CHIP, 50V CH 560PF J
CZ65	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
CZ66	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ67	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ69	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
CZ70	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ73	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ74	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ75	24105101	CERAMIC CHIP, 50V CH 100PF J
CZ76	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ77	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ78	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ79	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ80	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ81	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ82	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ83	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ84	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ85	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ86	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ87	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ88	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ89	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ93	24088133	OSCON 6.3V 47UF 6SVP47M
RF27	24105121	CERAMIC CHIP, 50V CH 120PF J
RESISTORS		
R110	24000445	CHIP JUMPER, 1608TYPE
R229	24000824	CHIP JUMPER, 2125TYPE
R271	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R272	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
R273	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R274	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R275	24011683	CHIP, METAL FILM, 1/20W 68K OHM J
R276	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R501	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
R502	24011272	CHIP, 1/20W 2.7K OHM J
R504	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R505	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R506	24011273	CHIP, METAL FILM, 1/20W 27K OHM J
R507	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
R508	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
R509	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
R511	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R512	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R514	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R515	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R516	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R517	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R519	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J

Location No.	Parts No.	Description
R520	24366681	CARBON FILM, 1/6W 680 OHM J
R523	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R524	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R525	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R543	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
R544	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
R545	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
R601	24554470	OXIDE METAL FILM, 2W 47 OHM J
R604	24000606	CHIP, 1/16W 8.2K OHM F
R605	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R606	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
R607	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R609	24011273	CHIP, METAL FILM, 1/20W 27K OHM J
R610	24011124	CHIP, 1/20W 120K OHM J
R611	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R612	24011273	CHIP, METAL FILM, 1/20W 27K OHM J
R613	24011124	CHIP, 1/20W 120K OHM J
R614	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R615	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R616	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
R617	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R618	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R619	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
R620	24871100	CHIP, 1/8W 10 OHM J
R623	24871100	CHIP, 1/8W 10 OHM J
R640	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R641	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R642	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R645	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R646	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R650	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R652	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
R655	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R660	24011563	CHIP, METAL FILM, 1/20W 56K OHM J
R661	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R664	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R665	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R667	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R670	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R671	24011182	CHIP, METAL FILM, 1/20W 1.8K OHM J
R672	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R673	24011182	CHIP, METAL FILM, 1/20W 1.8K OHM J
R674	24011563	CHIP, METAL FILM, 1/20W 56K OHM J
R676	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
R677	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
R678	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R684	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
R685	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
R686	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
R687	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
R688	24871101	CHIP, 1/8W 100 OHM J
R690	24871101	CHIP, 1/8W 100 OHM J
R4316	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R4317	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R4328	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R4329	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R4408	24011361	CHIP, 1/20W 360 OHM J
R4430	24011622	CHIP, METAL FILM, 1/20W 6.2K OHM J
R4465	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
R4467	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R4468	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R4471	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R4472	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R4473	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R4474	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R4476	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
R4477	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
R4504	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R4526	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
R4527	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RA01	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA02	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA03	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA05	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA06	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA07	24011101	CHIP, METAL FILM, 1/20W 100 OHM J

Location No.	Parts No.	Description
RA08	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA09	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA10	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA11	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA12	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA13	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
RA14	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
RA15	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RA16	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA20	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA21	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA22	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA24	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA25	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA27	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA28	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA29	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RA30	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RA31	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA34	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA35	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA36	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA37	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA41	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA43	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
RA44	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
RA45	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA53	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA55	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA60	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA63	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA65	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA66	24011224	CHIP, METAL FILM, 1/20W 220K OHM J
RA67	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RA68	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA71	24366683	CARBON FILM, 1/6W 68K OHM J
RA72	24366223	CARBON FILM, 1/6W 22K OHM J
RA73	24366103	CARBON FILM, 1/6W 10K OHM J
RA75	24366103	CARBON FILM, 1/6W 10K OHM J
RA76	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
RA77	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA78	24011224	CHIP, METAL FILM, 1/20W 220K OHM J
RA79	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
RA80	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
RA83	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA84	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA85	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA86	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA88	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RA89	24011272	CHIP, 1/20W 2.7K OHM J
RA91	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA92	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA93	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA94	24011470	CHIP, METAL FILM, 1/20W 47 OHM J
RA95	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA96	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA97	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RA98	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA99	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA551	24011330	CHIP, 1/20W 33 OHM J
RA552	24011330	CHIP, 1/20W 33 OHM J
RA553	24011330	CHIP, 1/20W 33 OHM J
RA554	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB01	24011271	CHIP, METAL FILM, 1/20W 270 OHM J
RB02	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
RB04	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
RB05	24011105	CHIP, METAL FILM, 1/20W 1M OHM J
RB06	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
RB07	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RB08	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RB09	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB10	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RB11	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB12	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
RB13	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RB14	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J

Location No.	Parts No.	Description
RB15	24011470	CHIP, METAL FILM, 1/20W 47 OHM J
RB32	24011105	CHIP, METAL FILM, 1/20W 1M OHM J
RB33	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
RB34	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RB35	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RB46	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB49	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
RB81	24011122	CHIP, METAL FILM, 1/20W 1.2K OHM J
RB82	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
RB83	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
RB90	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RB91	24872393	CHIP, 1/16W 39K OHM J
RB92	24011271	CHIP, METAL FILM, 1/20W 270 OHM J
RB93	24011271	CHIP, METAL FILM, 1/20W 270 OHM J
RB94	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RB95	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RB96	24011273	CHIP, METAL FILM, 1/20W 27K OHM J
RB97	24011273	CHIP, METAL FILM, 1/20W 27K OHM J
RB98	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RC01	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC02	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC03	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC04	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC05	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC06	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC07	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC08	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC09	24000445	CHIP JUMPER, 1608TYPE
RC10	24000445	CHIP JUMPER, 1608TYPE
RC11	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC12	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC13	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC14	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC15	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC16	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC40	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC41	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RD01	24011273	CHIP, METAL FILM, 1/20W 27K OHM J
RD02	24011203	CHIP, METAL FILM, 1/20W 20K OHM J
RD04	24011203	CHIP, METAL FILM, 1/20W 20K OHM J
RD07	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RD08	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RD10	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RD14	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RD17	24011203	CHIP, METAL FILM, 1/20W 20K OHM J
RD19	24011203	CHIP, METAL FILM, 1/20W 20K OHM J
RD20	24011273	CHIP, METAL FILM, 1/20W 27K OHM J
RD21	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RF18	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RF19	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RF20	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RF21	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RF22	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RF23	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RF24	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RF25	24000445	CHIP JUMPER, 1608TYPE
RF26	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
RF45	24000445	CHIP JUMPER, 1608TYPE
RR01	24871750	CHIP, 1/8W 75 OHM J
RR02	24871750	CHIP, 1/8W 75 OHM J
RR03	24871750	CHIP, 1/8W 75 OHM J
RR524	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RS01	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS02	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS03	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS04	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS05	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS06	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS07	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS08	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS09	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS10	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
RS11	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS12	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS13	24011271	CHIP, METAL FILM, 1/20W 270 OHM J
RS14	24011271	CHIP, METAL FILM, 1/20W 270 OHM J

Location No.	Parts No.	Description
RS15	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS16	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS17	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS18	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS19	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS20	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS21	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RS22	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RS23	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS24	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS25	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS26	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS27	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS28	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS29	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RS30	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RS31	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS32	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS33	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS34	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS35	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS36	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS37	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS38	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS39	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS40	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS41	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS42	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS43	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS44	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS45	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS46	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RS47	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS48	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RS49	24011271	CHIP, METAL FILM, 1/20W 270 OHM J
RS50	24011271	CHIP, METAL FILM, 1/20W 270 OHM J
RS51	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS52	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS53	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS54	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS55	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RS56	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS57	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS58	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS59	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS60	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RS61	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS62	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RS63	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS64	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RS65	24011391	CHIP, METAL FILM, 1/20W 390 OHM J
RS66	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS67	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS68	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS69	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS70	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS75	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS76	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RS77	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS78	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS79	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RS80	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS81	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS82	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS83	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS84	24011563	CHIP, METAL FILM, 1/20W 56K OHM J
RS85	24000665	FUSIBLE, 1/4W 15 OHM J
RS86	24011391	CHIP, METAL FILM, 1/20W 390 OHM J
RS87	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS90	24011182	CHIP, METAL FILM, 1/20W 1.8K OHM J
RS91	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS92	24011393	CHIP, METAL FILM, 1/20W 39K OHM J
RS93	24011563	CHIP, METAL FILM, 1/20W 56K OHM J
RS94	24011393	CHIP, METAL FILM, 1/20W 39K OHM J
RS95	24011563	CHIP, METAL FILM, 1/20W 56K OHM J
RS96	24011223	CHIP, METAL FILM, 1/20W 22K OHM J

Location No.	Parts No.	Description
RS97	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS99	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS103	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RS112	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS116	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS500	24011393	CHIP, METAL FILM, 1/20W 39K OHM J
RS501	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
RS502	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS503	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS504	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
RS505	24011393	CHIP, METAL FILM, 1/20W 39K OHM J
RS506	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RS507	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RS508	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS509	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS511	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS512	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS513	24011393	CHIP, METAL FILM, 1/20W 39K OHM J
RS514	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS515	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RS516	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS517	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS520	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RS521	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RS522	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RS523	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RS524	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RS525	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
RS526	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS527	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RS528	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RS529	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS530	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RT01	24019527	THERMISTOR, NTC 1608 SIZE NSM3103F344F3R
RV04	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV05	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RV07	24367103	CARBON FILM, 1/6W 10K OHM G
RV08	24367103	CARBON FILM, 1/6W 10K OHM G
RV09	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV10	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV11	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV13	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV14	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RV15	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV16	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV17	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV18	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
RV20	24367103	CARBON FILM, 1/6W 10K OHM G
RV21	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV23	24552101	OXIDE METAL FILM, 1/2W 100 OHM J
RV25	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV26	24872471	CHIP, 1/16W 470 OHM J
RV28	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RV29	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RV30	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
RV31	24367392	CARBON FILM, 1/6W 3.9K OHM G
RV32	24367102	CARBON FILM, 1/6W 1K OHM G
RV33	24367392	CARBON FILM, 1/6W 3.9K OHM G
RV34	24367392	CARBON FILM, 1/6W 3.9K OHM G
RV35	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
RV36	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
RV37	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
RV41	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV42	24011391	CHIP, METAL FILM, 1/20W 390 OHM J
RV43	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RV44	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV45	24000445	CHIP JUMPER, 1608TYPE
RV46	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV48	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RV50	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
RV59	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV60	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RV61	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV62	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RV63	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RV64	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J

Location No.	Parts No.	Description
RV65	24552101	OXIDE METAL FILM, 1/2W 100 OHM J
RV67	24872471	CHIP, 1/16W 470 OHM J
RV68	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV72	24872391	CHIP, 1/16W 390 OHM J
RV73	24872391	CHIP, 1/16W 390 OHM J
RV75	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV77	24552101	OXIDE METAL FILM, 1/2W 100 OHM J
RV78	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV79	24552101	OXIDE METAL FILM, 1/2W 100 OHM J
RV80	24872471	CHIP, 1/16W 470 OHM J
RV81	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV82	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV83	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV85	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV87	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RV88	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
RV92	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV93	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV94	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV99	24000445	CHIP JUMPER, 1608TYPE
RV121	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV122	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV129	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV210	24000824	CHIP JUMPER, 2125TYPE
RV211	24000824	CHIP JUMPER, 2125TYPE
RV212	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV213	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV214	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV215	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV216	24872151	CHIP, 1/16W 150 OHM J
RV217	24872151	CHIP, 1/16W 150 OHM J
RV218	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV219	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV220	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV222	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV223	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV224	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV225	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
RV226	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
RV227	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
RV229	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV231	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
RV232	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
RV233	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
RV234	24000824	CHIP JUMPER, 2125TYPE
RV235	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV236	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV237	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV238	24872151	CHIP, 1/16W 150 OHM J
RV239	24872151	CHIP, 1/16W 150 OHM J
RV240	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV241	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV280	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV281	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV282	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV283	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV284	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV285	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV290	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV291	24011391	CHIP, METAL FILM, 1/20W 390 OHM J
RV292	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV293	24871681	CHIP, 1/8W 680 OHM J
RV294	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV295	24011391	CHIP, METAL FILM, 1/20W 390 OHM J
RV296	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV297	24871681	CHIP, 1/8W 680 OHM J
RV298	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV299	24011391	CHIP, METAL FILM, 1/20W 390 OHM J
RV330	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV331	24367102	CARBON FILM, 1/6W 1K OHM G
RV332	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV333	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RV334	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV335	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV336	24871681	CHIP, 1/8W 680 OHM J
RV337	24011101	CHIP, METAL FILM, 1/20W 100 OHM J

Location No.		Parts No.	Description
RV338		24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV341		24367102	CARBON FILM, 1/6W 1K OHM G
RV342		24011391	CHIP, METAL FILM, 1/20W 390 OHM J
RV343		24011391	CHIP, METAL FILM, 1/20W 390 OHM J
RV344		24011391	CHIP, METAL FILM, 1/20W 390 OHM J
RV349		24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RV357		24011330	CHIP, 1/20W 33 OHM J
RV358		24011330	CHIP, 1/20W 33 OHM J
RV359		24011330	CHIP, 1/20W 33 OHM J
RV360		24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV402		24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV403		24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RZ01		24000445	CHIP JUMPER, 1608TYPE
RZ02		24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RZ03		24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RZ04		24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
RZ06		24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RZ07		24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RZ08		24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RZ09		24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RZ10		24011122	CHIP, METAL FILM, 1/20W 1.2K OHM J
RZ11		24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RZ14		24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RZ15		24011224	CHIP, METAL FILM, 1/20W 220K OHM J
RZ16		24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RZ17		24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RZ18		24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RZ19		24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RZ20		24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RZ21		24011471	CHIP, METAL FILM, 1/20W 470 OHM J
RZ22		24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RZ23		24011122	CHIP, METAL FILM, 1/20W 1.2K OHM J
RZ24		24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
RZ25		24011511	CHIP, 1/20W 510 OHM J
RZ26		24011471	CHIP, METAL FILM, 1/20W 470 OHM J
RZ27		24011330	CHIP, 1/20W 33 OHM J
RZ29		24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RZ30		24011151	CHIP, METAL FILM, 1/20W 150 OHM J
RZ31		24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RZ32		24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RZ33		24011123	CHIP, METAL FILM, 1/20W 12K OHM J
RZ34		24011182	CHIP, METAL FILM, 1/20W 1.8K OHM J
RZ35		24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RZ36		24011330	CHIP, 1/20W 33 OHM J
RZ37		24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RZ38		24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RZ39		24011221	CHIP, METAL FILM, 1/20W 220 OHM J
RZ40		24011331	CHIP, METAL FILM, 1/20W 330 OHM J
RZ41		24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RZ42		24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RZ43		24011330	CHIP, 1/20W 33 OHM J
RZ44		24011330	CHIP, 1/20W 33 OHM J
RZ45		24011751	CHIP, METAL FILM, 1/20W 750 OHM J
RZ46		24871511	CHIP, 1/8W 510 OHM J
RZ47	#1	24871331	CHIP, 1/8W 330 OHM J
RZ48		24011272	CHIP, 1/20W 2.7K OHM J
RZ50		24011151	CHIP, METAL FILM, 1/20W 150 OHM J
RZ51		24366331	CARBON FILM, 1/6W 330 OHM J
RZ52		24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RZ53		24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RZ54		24011121	CHIP, METAL FILM, 1/20W 120 OHM J
RZ55		24011271	CHIP, METAL FILM, 1/20W 270 OHM J
RZ56		24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RZ57		24011182	CHIP, METAL FILM, 1/20W 1.8K OHM J
RZ58		24011221	CHIP, METAL FILM, 1/20W 220 OHM J
RZ59		24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RZ60		24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
RZ61		24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RZ62		24011220	CHIP, METAL FILM, 1/20W 22 OHM J
RZ63		24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RZ64		24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RZ65		24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
RZ66		24011220	CHIP, METAL FILM, 1/20W 22 OHM J
RZ67		24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RZ72		24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RZ73		24011103	CHIP, METAL FILM, 1/20W 10K OHM J

Location No.		Parts No.	Description
RZ74	#1	24871391	CHIP, 1/8W 390 OHM J
	#2	24871681	CHIP, 1/8W 680 OHM J
RZ76		24011105	CHIP, METAL FILM, 1/20W 1M OHM J
DMY02		24000445	CHIP JUMPER, 1608TYPE
G696		24011101	CHIP, METAL FILM, 1/20W 100 OHM J
G697		24011101	CHIP, METAL FILM, 1/20W 100 OHM J
GC01		24000445	CHIP JUMPER, 1608TYPE
GC02		24000445	CHIP JUMPER, 1608TYPE
GC03		24000445	CHIP JUMPER, 1608TYPE
GC04		24000445	CHIP JUMPER, 1608TYPE
GC05		24000445	CHIP JUMPER, 1608TYPE
GC20		24000824	CHIP JUMPER, 2125TYPE
GJ603		24000445	CHIP JUMPER, 1608TYPE
GJ604		24000445	CHIP JUMPER, 1608TYPE
GR102		24000445	CHIP JUMPER, 1608TYPE
GR103		24000445	CHIP JUMPER, 1608TYPE
GR286		24000824	CHIP JUMPER, 2125TYPE
GR288		24000824	CHIP JUMPER, 2125TYPE
GR289		24000824	CHIP JUMPER, 2125TYPE
GR402		24000445	CHIP JUMPER, 1608TYPE
GR403		24000445	CHIP JUMPER, 1608TYPE
GR404		24000445	CHIP JUMPER, 1608TYPE
GR515		24000445	CHIP JUMPER, 1608TYPE
GR516		24000445	CHIP JUMPER, 1608TYPE
GR517		24000445	CHIP JUMPER, 1608TYPE
GR518		24000445	CHIP JUMPER, 1608TYPE
GR605		24000445	CHIP JUMPER, 1608TYPE
GR610		24000445	CHIP JUMPER, 1608TYPE
GR611		24000445	CHIP JUMPER, 1608TYPE
GRR01		24000445	CHIP JUMPER, 1608TYPE
GRR02		24000445	CHIP JUMPER, 1608TYPE
GRR03		24000445	CHIP JUMPER, 1608TYPE
GRR04		24000445	CHIP JUMPER, 1608TYPE
GRR05		24000445	CHIP JUMPER, 1608TYPE
GRS04		24000445	CHIP JUMPER, 1608TYPE
GRS06		24000445	CHIP JUMPER, 1608TYPE
GRS07		24000445	CHIP JUMPER, 1608TYPE
GRV01		24000445	CHIP JUMPER, 1608TYPE
GRV02		24000445	CHIP JUMPER, 1608TYPE
GRV03		24011101	CHIP, METAL FILM, 1/20W 100 OHM J
GRV04		24011101	CHIP, METAL FILM, 1/20W 100 OHM J
GRV06		24011101	CHIP, METAL FILM, 1/20W 100 OHM J
GRV08		24011101	CHIP, METAL FILM, 1/20W 100 OHM J
GRV09		24011101	CHIP, METAL FILM, 1/20W 100 OHM J
GRV12		24000445	CHIP JUMPER, 1608TYPE
GRV13		24000445	CHIP JUMPER, 1608TYPE
GRV14		24000445	CHIP JUMPER, 1608TYPE
GRV15		24000445	CHIP JUMPER, 1608TYPE
GRV16		24000445	CHIP JUMPER, 1608TYPE
GRV17		24000445	CHIP JUMPER, 1608TYPE
GRV18		24000445	CHIP JUMPER, 1608TYPE
GRV19		24000445	CHIP JUMPER, 1608TYPE
GRV20		24000445	CHIP JUMPER, 1608TYPE
GRV21		24000445	CHIP JUMPER, 1608TYPE
GRV22		24000445	CHIP JUMPER, 1608TYPE
GRV23		24000445	CHIP JUMPER, 1608TYPE
GRV24		24000445	CHIP JUMPER, 1608TYPE
GRV25		24000445	CHIP JUMPER, 1608TYPE
GRV26		24000445	CHIP JUMPER, 1608TYPE
GRV27		24000445	CHIP JUMPER, 1608TYPE
GRV29		24000445	CHIP JUMPER, 1608TYPE
GRV30		24000445	CHIP JUMPER, 1608TYPE
GRV31		24000445	CHIP JUMPER, 1608TYPE
GRV32		24000445	CHIP JUMPER, 1608TYPE
GRV35		24011101	CHIP, METAL FILM, 1/20W 100 OHM J
GRV36		24000445	CHIP JUMPER, 1608TYPE
GRV37		24000445	CHIP JUMPER, 1608TYPE
GRV40		24000445	CHIP JUMPER, 1608TYPE
GRV41		24000445	CHIP JUMPER, 1608TYPE
GRV42		24011331	CHIP, METAL FILM, 1/20W 330 OHM J
GRV43		24000445	CHIP JUMPER, 1608TYPE
GRV44		24000445	CHIP JUMPER, 1608TYPE
GRV45		24000445	CHIP JUMPER, 1608TYPE
GRV46		24000445	CHIP JUMPER, 1608TYPE
GRV47		24000445	CHIP JUMPER, 1608TYPE
GRV48		24000445	CHIP JUMPER, 1608TYPE

Location No.	Parts No.	Description
GRV50	24000445	CHIP JUMPER, 1608TYPE
GRV51	24000445	CHIP JUMPER, 1608TYPE
GRV52	24000445	CHIP JUMPER, 1608TYPE
GRV53	24000445	CHIP JUMPER, 1608TYPE
GRV54	24000445	CHIP JUMPER, 1608TYPE
GRV55	24000445	CHIP JUMPER, 1608TYPE
GRV56	24000445	CHIP JUMPER, 1608TYPE
GRV57	24000445	CHIP JUMPER, 1608TYPE
GRV58	24000445	CHIP JUMPER, 1608TYPE
GRV59	24000445	CHIP JUMPER, 1608TYPE
GRV60	24000445	CHIP JUMPER, 1608TYPE
GRV61	24000445	CHIP JUMPER, 1608TYPE
GRV62	24000445	CHIP JUMPER, 1608TYPE
GRV63	24000445	CHIP JUMPER, 1608TYPE
GRV64	24000445	CHIP JUMPER, 1608TYPE
GRV65	24000445	CHIP JUMPER, 1608TYPE
GRV66	24000445	CHIP JUMPER, 1608TYPE
GRV67	24000445	CHIP JUMPER, 1608TYPE
GRV68	24000445	CHIP JUMPER, 1608TYPE
GRV69	24000445	CHIP JUMPER, 1608TYPE
GRV70	24000445	CHIP JUMPER, 1608TYPE
GRV71	24000445	CHIP JUMPER, 1608TYPE
GRV72	24000445	CHIP JUMPER, 1608TYPE
GRV73	24000445	CHIP JUMPER, 1608TYPE
GRV74	24000445	CHIP JUMPER, 1608TYPE
GRV75	24000445	CHIP JUMPER, 1608TYPE
GRV76	24000445	CHIP JUMPER, 1608TYPE
GRV77	24000445	CHIP JUMPER, 1608TYPE
GRV78	24000445	CHIP JUMPER, 1608TYPE
GRV81	24000445	CHIP JUMPER, 1608TYPE
GRV82	24000445	CHIP JUMPER, 1608TYPE
GRV83	24000445	CHIP JUMPER, 1608TYPE
GRV84	24000445	CHIP JUMPER, 1608TYPE
GRV85	24000445	CHIP JUMPER, 1608TYPE
GRV86	24000445	CHIP JUMPER, 1608TYPE
GRV87	24000445	CHIP JUMPER, 1608TYPE
GRV88	24000445	CHIP JUMPER, 1608TYPE
GRV89	24000445	CHIP JUMPER, 1608TYPE
GRV91	24000445	CHIP JUMPER, 1608TYPE
GRV92	24000445	CHIP JUMPER, 1608TYPE
GRZ01	24000445	CHIP JUMPER, 1608TYPE
GRZ03	24000445	CHIP JUMPER, 1608TYPE
GRZ05	24000445	CHIP JUMPER, 1608TYPE
GRZ06	24000445	CHIP JUMPER, 1608TYPE
GRZ07	24000445	CHIP JUMPER, 1608TYPE
GRZ23	24000445	CHIP JUMPER, 1608TYPE
GRZ24	24000445	CHIP JUMPER, 1608TYPE
GRZ26	24000445	CHIP JUMPER, 1608TYPE
GRZ27	24000445	CHIP JUMPER, 1608TYPE
COILS & TRANSFORMERS		
L101	23289845	COIL, PEAKING, TRF4680AT
L102	23103828	INDUCTOR, BEAD, TEM2121M
L103	23103828	INDUCTOR, BEAD, TEM2121M
L280	23103886	INDUCTOR, CHIP BEAD 3A 60OHM
L400	23289840	COIL, PEAKING, TRF4100AT
L504	23238714	COIL, PEAKING, TRF4100AJ
L505	23289840	COIL, PEAKING, TRF4100AT
L620	23246406	COIL, CHOKE, TLN3528AF
L622	23246406	COIL, CHOKE, TLN3528AF
L623	23246406	COIL, CHOKE, TLN3528AF
L625	23246406	COIL, CHOKE, TLN3528AF
L640	23289109	COIL, PEAKING, TRF41R0AF
L645	23103828	INDUCTOR, BEAD, TEM2121M
L655	23103233	INDUCTOR, BEAD TEM2137AD
L4301	23289840	COIL, PEAKING, TRF4100AT
LA01	23289840	COIL, PEAKING, TRF4100AT
LC01	23103828	INDUCTOR, BEAD, TEM2121M
LC02	23103828	INDUCTOR, BEAD, TEM2121M
LC03	23103828	INDUCTOR, BEAD, TEM2121M
LC04	23103828	INDUCTOR, BEAD, TEM2121M
LC05	23103828	INDUCTOR, BEAD, TEM2121M
LC06	23103828	INDUCTOR, BEAD, TEM2121M
LC07	23103828	INDUCTOR, BEAD, TEM2121M
LC08	23103828	INDUCTOR, BEAD, TEM2121M
LC09	23103828	INDUCTOR, BEAD, TEM2121M

Location No.	Parts No.	Description
LC10	23103828	INDUCTOR, BEAD, TEM2121M
LC11	23103828	INDUCTOR, BEAD, TEM2121M
LC12	23103828	INDUCTOR, BEAD, TEM2121M
LC13	23103828	INDUCTOR, BEAD, TEM2121M
LC14	23103828	INDUCTOR, BEAD, TEM2121M
LC15	23103828	INDUCTOR, BEAD, TEM2121M
LC16	23103828	INDUCTOR, BEAD, TEM2121M
LC18	23103828	INDUCTOR, BEAD, TEM2121M
LC24	23103828	INDUCTOR, BEAD, TEM2121M
LC28	23103828	INDUCTOR, BEAD, TEM2121M
LC29	23103828	INDUCTOR, BEAD, TEM2121M
LC30	23103828	INDUCTOR, BEAD, TEM2121M
LC31	23246195	COIL, CHIP INDUCTOR, TRF41R0CG
LC32	23103828	INDUCTOR, BEAD, TEM2121M
LR20	23289840	COIL, PEAKING, TRF4100AT
LV09	23289840	COIL, PEAKING, TRF4100AT
LV10	23289840	COIL, PEAKING, TRF4100AT
LV21	23289840	COIL, PEAKING, TRF4100AT
LV42	23289840	COIL, PEAKING, TRF4100AT
LV43	23289840	COIL, PEAKING, TRF4100AT
LV44	23103852	COIL, FILTER, TEM2028AH
LV45	23103852	COIL, FILTER, TEM2028AH
LV46	23103852	COIL, FILTER, TEM2028AH
LV270	23289844	COIL, PEAKING, TRF4470AT
LZ01	23289840	COIL, PEAKING, TRF4100AT
LZ02	23289840	COIL, PEAKING, TRF4100AT
LZ03	23289840	COIL, PEAKING, TRF4100AT
LZ04	23103827	INDUCTOR, BEAD, TEM2120M
LZ06	23289569	COIL, PEAKING, TRF45R6AF
LZ08	23289840	COIL, PEAKING, TRF4100AT
LZ10	23103825	INDUCTOR, BEAD, TEM2118M
LZ11	23103825	INDUCTOR, BEAD, TEM2118M
LZ12	23103825	INDUCTOR, BEAD, TEM2118M
LZ13	23103825	INDUCTOR, BEAD, TEM2118M
LZ14	23103825	INDUCTOR, BEAD, TEM2118M
LZ16	23103825	INDUCTOR, BEAD, TEM2118M
LZ17	23103825	INDUCTOR, BEAD, TEM2118M
LZ18	23103825	INDUCTOR, BEAD, TEM2118M
LZ19	23103825	INDUCTOR, BEAD, TEM2118M
LZ20	23103825	INDUCTOR, BEAD, TEM2118M
LZ21	23103825	INDUCTOR, BEAD, TEM2118M
LZ22	23103825	INDUCTOR, BEAD, TEM2118M
LZ23	23103825	INDUCTOR, BEAD, TEM2118M
LZ25	23289840	COIL, PEAKING, TRF4100AT
LZ26	23103825	INDUCTOR, BEAD, TEM2118M
LZ27	23103825	INDUCTOR, BEAD, TEM2118M
LZ29	23103828	INDUCTOR, BEAD, TEM2121M
LZ30	23289840	COIL, PEAKING, TRF4100AT
LZ31	23289229	COIL, PEAKING, TRF4229AF
LZ32	23289829	COIL, PEAKING, TRF48R2AF
LZ33	23289479	COIL, PEAKING, TRF44R7AF
LZ34	23289840	COIL, PEAKING, TRF4100AT
LZ35	23103823	COIL, FILTER, TEM2027D
LZ36	23103823	COIL, FILTER, TEM2027D
LZ37	23103823	COIL, FILTER, TEM2027D
GA02	23103828	INDUCTOR, BEAD, TEM2121M
GA03	23103828	INDUCTOR, BEAD, TEM2121M
GA06	23103828	INDUCTOR, BEAD, TEM2121M
GA07	23103828	INDUCTOR, BEAD, TEM2121M
GA08	23103828	INDUCTOR, BEAD, TEM2121M
GA10	23103828	INDUCTOR, BEAD, TEM2121M
GA21	23103828	INDUCTOR, BEAD, TEM2121M
GA22	23103828	INDUCTOR, BEAD, TEM2121M
SEMICONDUCTORS		
Q271	23114499	TRANSISTOR, RN1404
Q272	23114499	TRANSISTOR, RN1404
Q273	23114493	TRANSISTOR, RN2404
Q274	23314993	TRANSISTOR, 2SC4081 Q
Q280	23904494	IC, TA7805F(TE16L)
Q501	23009178	IC, TB1274AF(J,FP)
Q504	23314994	TRANSISTOR, 2SA1576A106
Q505	23314994	TRANSISTOR, 2SA1576A106
Q506	23114433	TRANSISTOR, 2SC1815-Y
Q507	23114501	TRANSISTOR, RN1402
Q520	23205014	TRANSISTOR, 2SC4667-O

Location No.	Parts No.	Description
Q610	23009368	IC, TA2024(T)
Q612	23314163	TRANSISTOR, 2SA1162-Y
Q615	23114493	TRANSISTOR, RN2404
Q627	23114493	TRANSISTOR, RN2404
Q630	23009042	IC, LA4525
Q671	70114396	TRANSISTOR, 2SC3326B
Q672	70114396	TRANSISTOR, 2SC3326B
Q675	70114396	TRANSISTOR, 2SC3326B
Q676	70114396	TRANSISTOR, 2SC3326B
Q677	23114493	TRANSISTOR, RN2404
Q678	23314475	TRANSISTOR, 2SC2712-Y
Q679	23314475	TRANSISTOR, 2SC2712-Y
Q680	23314475	TRANSISTOR, 2SC2712-Y
Q4305	23205057	TRANSISTOR, KTC3875Y
Q4307	23205057	TRANSISTOR, KTC3875Y
Q4311	23904396	IC, TC7S14F
Q4312	23904396	IC, TC7S14F
Q4313	23904396	IC, TC7S14F
Q4464	23314994	TRANSISTOR, 2SA1576A106
QA01	23000966	IC, OTP MCU 8BIT 16M 64P CXP7500P10S-1
QA02	23009649	IC, AT24C64A-10PI
QA05	23906367	IC, PST9146NL
QA13	23205112	TRANSISTOR, 2SA1980UF-Y
QA84	23205014	TRANSISTOR, 2SC4667-O
QB01	23314163	TRANSISTOR, 2SA1162-Y
QB03	23114459	TRANSISTOR, RN1205
QB04	23314994	TRANSISTOR, 2SA1576A106
QB05	23314993	TRANSISTOR, 2SC4081 Q
QB06	23314994	TRANSISTOR, 2SA1576A106
QB42	23314994	TRANSISTOR, 2SA1576A106
QB43	23314993	TRANSISTOR, 2SC4081 Q
QB81	70114396	TRANSISTOR, 2SC3326B
QB82	70114396	TRANSISTOR, 2SC3326B
QB83	23314994	TRANSISTOR, 2SA1576A106
QB92	23314993	TRANSISTOR, 2SC4081 Q
QB93	23314994	TRANSISTOR, 2SA1576A106
QB94	23314994	TRANSISTOR, 2SA1576A106
QB95	23314994	TRANSISTOR, 2SA1576A106
QB96	23314994	TRANSISTOR, 2SA1576A106
QD05	23009221	IC, NJM2150V(TE1)
QF15	23314994	TRANSISTOR, 2SA1576A106
QF16	23314993	TRANSISTOR, 2SC4081 Q
QS01	70114396	TRANSISTOR, 2SC3326B
QS02	70114396	TRANSISTOR, 2SC3326B
QS03	23205045	TRANSISTOR, 2SA1037AKQ
QS04	23205045	TRANSISTOR, 2SA1037AKQ
QS05	70114396	TRANSISTOR, 2SC3326B
QS06	70114396	TRANSISTOR, 2SC3326B
QS07	70114396	TRANSISTOR, 2SC3326B
QS08	70114396	TRANSISTOR, 2SC3326B
QS09	23114493	TRANSISTOR, RN2404
QS11	23314475	TRANSISTOR, 2SC2712-Y
QS12	23114493	TRANSISTOR, RN2404
QS13	70114396	TRANSISTOR, 2SC3326B
QS14	70114396	TRANSISTOR, 2SC3326B
QS15	70129558	IC, MM1231XF
QS16	23314993	TRANSISTOR, 2SC4081 Q
QS17	23314993	TRANSISTOR, 2SC4081 Q
QS18	70114396	TRANSISTOR, 2SC3326B
QS19	23314475	TRANSISTOR, 2SC2712-Y
QS20	70114396	TRANSISTOR, 2SC3326B
QS51	23000263	IC, BU4053BCF
QS52	23314475	TRANSISTOR, 2SC2712-Y
QS102	23318820	IC, OPE AMP, BA10358F
QS103	23906597	IC, BA4558F
QS104	23314993	TRANSISTOR, 2SC4081 Q
QS105	23205045	TRANSISTOR, 2SA1037AKQ
QS106	70114396	TRANSISTOR, 2SC3326B
QS107	23114493	TRANSISTOR, RN2404
QS108	23314993	TRANSISTOR, 2SC4081 Q
QV01	23906887	IC, CXA2069Q
QV02	23314993	TRANSISTOR, 2SC4081 Q
QV03	23314993	TRANSISTOR, 2SC4081 Q
QV04	23314993	TRANSISTOR, 2SC4081 Q
QV05	23314993	TRANSISTOR, 2SC4081 Q
QV06	23314994	TRANSISTOR, 2SA1576A106

Location No.	Parts No.	Description
QV09	23114433	TRANSISTOR, 2SC1815-Y
QV11	23114433	TRANSISTOR, 2SC1815-Y
QV12	23114433	TRANSISTOR, 2SC1815-Y
QV14	23114433	TRANSISTOR, 2SC1815-Y
QV16	70128711	IC, SW 2IN 1OUT 3CIRCUIT ALLCLP BA7603F
QV17	23318981	IC, MC14053BF
QV20	23314994	TRANSISTOR, 2SA1576A106
QV21	23314993	TRANSISTOR, 2SC4081 Q
QV22	23314993	TRANSISTOR, 2SC4081 Q
QV23	23314994	TRANSISTOR, 2SA1576A106
QV26	23314993	TRANSISTOR, 2SC4081 Q
QV27	23314994	TRANSISTOR, 2SA1576A106
QV28	23314993	TRANSISTOR, 2SC4081 Q
QV29	23314994	TRANSISTOR, 2SA1576A106
QV30	23314993	TRANSISTOR, 2SC4081 Q
QV243	23000801	IC, MM1501XNRE
QV254	23000360	IC, MM1519XQ
QZ01	23009303	IC, CMOS MULTI COMB SOP16 TDA9181T/N1,118
QZ02	23000803	IC, UPC2925T
QZ03	23314994	TRANSISTOR, 2SA1576A106
QZ04	23314994	TRANSISTOR, 2SA1576A106
QZ05	23314994	TRANSISTOR, 2SA1576A106
QZ06	23314994	TRANSISTOR, 2SA1576A106
QZ07	23085002	IC, 3D Y/C SPRITTER UPD64084GC
QZ09	23314993	TRANSISTOR, 2SC4081 Q
QZ10	23314994	TRANSISTOR, 2SA1576A106
QZ11	23114501	TRANSISTOR, RN1402
QZ12	23314993	TRANSISTOR, 2SC4081 Q
QZ13	23314993	TRANSISTOR, 2SC4081 Q
QZ14	23314993	TRANSISTOR, 2SC4081 Q
QZ15	23314993	TRANSISTOR, 2SC4081 Q
QZ16	23314993	TRANSISTOR, 2SC4081 Q
QZ17	23314993	TRANSISTOR, 2SC4081 Q
QZ18	23314994	TRANSISTOR, 2SA1576A106
QZ19	23314994	TRANSISTOR, 2SA1576A106
QZ20	23314994	TRANSISTOR, 2SA1576A106
QZ21	23314994	TRANSISTOR, 2SA1576A106
QZ22	23314994	TRANSISTOR, 2SA1576A106
QZ23	23314994	TRANSISTOR, 2SA1576A106
QZ24	23314993	TRANSISTOR, 2SC4081 Q
QZ250	23205099	TRANSISTOR, FET VDSS=60V RK7002
QZ260	23205099	TRANSISTOR, FET VDSS=60V RK7002
D272	23316231	DIODE, 1SS355
D280	23316231	DIODE, 1SS355
D506	23316673	DIODE, ZENER, MTZJ5.6C
D511	23357037	DIODE, ZENER, UDZS5.6B
D514	23357037	DIODE, ZENER, UDZS5.6B
D515	23357037	DIODE, ZENER, UDZS5.6B
D608	23316591	DIODE, ZENER, MA8100-M
D611	23316231	DIODE, 1SS355
D612	23316231	DIODE, 1SS355
D613	23316231	DIODE, 1SS355
D614	23316231	DIODE, 1SS355
D615	23316231	DIODE, 1SS355
D616	23316231	DIODE, 1SS355
D617	23316231	DIODE, 1SS355
D618	23316231	DIODE, 1SS355
D619	23316231	DIODE, 1SS355
D620	23316231	DIODE, 1SS355
D621	23316231	DIODE, 1SS355
D622	23316231	DIODE, 1SS355
D623	23316231	DIODE, 1SS355
D624	23316231	DIODE, 1SS355
D625	23316231	DIODE, 1SS355
D626	23316231	DIODE, 1SS355
D627	23316231	DIODE, 1SS355
D628	23316231	DIODE, 1SS355
D629	23316231	DIODE, 1SS355
D640	23316231	DIODE, 1SS355
D641	23316231	DIODE, 1SS355
D642	23316231	DIODE, 1SS355
D643	23316231	DIODE, 1SS355
D646	23316231	DIODE, 1SS355
D656	23316604	DIODE, ZENER, MA8150-M, TX
D657	23316573	DIODE, ZENER, MA8062-L
D672	23316231	DIODE, 1SS355

Location No.	Parts No.	Description
D673	23316231	DIODE, 1SS355
DA02	23316231	DIODE, 1SS355
DA03	23316231	DIODE, 1SS355
DA42	23316673	DIODE, ZENER, MTZJ5.6C
DB01	23358564	DIODE, LED, SLR-56VC3FPQ
DB02	23358563	DIODE, LED, SLR-56MC3FPQR
DB03	23358522	DIODE, LED, SIR-56SB3F
DR70	23357037	DIODE, ZENER, UDZS5.6B
DR71	23357037	DIODE, ZENER, UDZS5.6B
DS01	23357172	DIODE, ZENER, UDZS10B
DS02	23357172	DIODE, ZENER, UDZS10B
DS03	23357172	DIODE, ZENER, UDZS10B
DS04	23357172	DIODE, ZENER, UDZS10B
DS11	23316231	DIODE, 1SS355
DS13	23316231	DIODE, 1SS355
DS14	23316231	DIODE, 1SS355
DS102	23316571	DIODE, ZENER, MA8056-M
DV02	23357172	DIODE, ZENER, UDZS10B
DV04	23357172	DIODE, ZENER, UDZS10B
DV05	23357172	DIODE, ZENER, UDZS10B
DV06	23357172	DIODE, ZENER, UDZS10B
DV07	23357172	DIODE, ZENER, UDZS10B
DV08	23357172	DIODE, ZENER, UDZS10B
DV09	23357172	DIODE, ZENER, UDZS10B
DV11	23357172	DIODE, ZENER, UDZS10B
DV12	23357172	DIODE, ZENER, UDZS10B
DV14	23357171	DIODE, ZENER, UDZSTE-17 9.1B
DV15	23357172	DIODE, ZENER, UDZS10B
DV16	23357037	DIODE, ZENER, UDZS5.6B
DV17	23357037	DIODE, ZENER, UDZS5.6B
DV18	23357037	DIODE, ZENER, UDZS5.6B
DV19	23357037	DIODE, ZENER, UDZS5.6B
DV20	23357037	DIODE, ZENER, UDZS5.6B
DV21	23357037	DIODE, ZENER, UDZS5.6B
DV22	23357172	DIODE, ZENER, UDZS10B
DV23	23357172	DIODE, ZENER, UDZS10B
DV24	23357172	DIODE, ZENER, UDZS10B
DV25	23357172	DIODE, ZENER, UDZS10B
DV31	23357172	DIODE, ZENER, UDZS10B
DV120	23118529	DIODE, ZENER, RD5.6ES B2
DV244	23357172	DIODE, ZENER, UDZS10B
DV245	23357172	DIODE, ZENER, UDZS10B
DV246	23357172	DIODE, ZENER, UDZS10B
DV247	23357172	DIODE, ZENER, UDZS10B
DV248	23357172	DIODE, ZENER, UDZS10B
DV249	23357172	DIODE, ZENER, UDZS10B
DV250	23357172	DIODE, ZENER, UDZS10B
DV254	23357172	DIODE, ZENER, UDZS10B
DZ01	23357037	DIODE, ZENER, UDZS5.6B
DZ02	23357037	DIODE, ZENER, UDZS5.6B
DZ05	23316231	DIODE, 1SS355
KB01	23000852	IC, REMOTE PHOTO RECEIVER, PIC-37043TE2
MISCELLANEOUS		
A501	23717176	SCREW, PP5X12+SW+W SZ
A502	23717175	SCREW, PP3X6+SW+W SZ
A503	72471064	SCREW, BIDT2 3*10BZ
A504	23738071	SCREW, STP4X10+SW+W SZ 32L400V;S1584X005
⚠ B001	23301560	LCD PANEL, 03SHARP32 32L400V LQ315T3LZ11
E902	72471012	SCREW WITH WASHER
E903	72471012	SCREW WITH WASHER
E904	72471012	SCREW WITH WASHER
E905	72471012	SCREW WITH WASHER
E906	72471012	SCREW WITH WASHER
E907	72471012	SCREW WITH WASHER
H002	23148733	MODULE, NICAM/IGR A-PRO, MPSN11B
MJ15	23389211	FFC CABLE, 32HL84;P1.0-25P
MJ61	23389212	FFC CABLE, 32HL84;P1.0-11P
MV23	23389213	FFC CABLE, 32HL84;P1.0-19P
MZ01	23368868	CABLE, LVDS 300MM LVDS
P101A	23713495	SOCKET, TWG-P19X-A1
P102B	23713495	SOCKET, TWG-P19X-A1
P214A	23713493	SOCKET, 127301113K2
P215A	23902655	CONNECTOR, B-B 15P
P215B	23367724	CONNECTOR, PLUG B-B 15P
P601	23368578	CONNECTOR, PLUG 4P, 2.5MM G JST-EH, B4B-EH-F1-TV4

Location No.	Parts No.	Description
P614A	23368577	CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4
P614B	23368577	CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4
P661	23365500	EARPHON JACK
P662	23365432	EARPHONE JACK
⚠ P801 #1	23372208	POWER CORD, UK-HK-PSB 10A 250V MP5004A PSB
⚠ #2	23372011	POWER CORD, CEE, VOLEX
P802A	23368013	CONNECTOR, PLUG, 2P 11.88MM W VT-JST
P809A	23367068	CONNECTOR, PLUG 8P, 2.5MM G JST-EH B8B-EH-F1-TV4
P810A	23367073	CONNECTOR, PLUG 13P
P811A	23367070	PLUG , NP 2.5MM G JST-EH B10B-EH-F1A
PB11A	23368578	CONNECTOR, PLUG 4P, 2.5MM G JST-EH, B4B-EH-F1-TV4
PB12A	23368577	CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4
PB12B	23368584	CONNECTOR, PLUG, 3P2.5MM W EH-JST S3B-EH
PB13A	23368579	CONNECTOR, PLUG 5P, 2.5MM G JST-EH, B5B-EH-F1-TV4
PJ15A	23713449	CONNECTOR, 25P JST 25FMN-BTK-A
PJ62	23368579	CONNECTOR, PLUG 5P, 2.5MM G JST-EH, B5B-EH-F1-TV4
PJ63	23713435	CONNECTOR, 11P JST 11FMN-BTK-A
PJ65	23368580	CONNECTOR, PLUG 6P, 2.5MM G JST-EH B6B-EH-F1-TV4
PP04	23974994	BAND, KESSOKU
PT01	23713570	CONNECTOR, BM03B-SRSS-TBT
PV01	23023227	JACK, PIN 6P JLC JACK-5
PV03	23023223	JACK, PIN 6P JLC JACK-6
PV21B	23713492	SOCKET, 127301111K2
PV23A	23713443	CONNECTOR, 19P JST 19FMN-BTK-A
PV23B	23713443	CONNECTOR, 19P JST 19FMN-BTK-A
PV25A	23367069	CONNECTOR, PLUG, NP 2.5MM G JST-EH, B9B-EH-F1A
PV25B	23367069	CONNECTOR, PLUG, NP 2.5MM G JST-EH, B9B-EH-F1A
PV31	23023107	JACK, Y/C JLC YKF51-5560, 14VL43
PV32	23023222	JACK, PIN 9P JLC JACK-7
PV60	23023228	PLUG, PIN 3P JLC YKC21-5676
PV61	23023107	JACK, Y/C JLC YKF51-5560, 14VL43
PV90	23713583	CONNECTOR, D-SUB 15P 1470655-2
⚠ S801	23344483	SWITCH, ESB92S NAE
SA01	23145226	SWITCH, 1C1P, PUSH
SA02	23145226	SWITCH, 1C1P, PUSH
SA03	23145226	SWITCH, 1C1P, PUSH
SA04	23145226	SWITCH, 1C1P, PUSH
SA06	23145226	SWITCH, 1C1P, PUSH
SA07	23145226	SWITCH, 1C1P, PUSH
W661	23351156	SPEAKER, SPK1410AM, 60X120 8-OHM 10W
⚠ X501	23153438	CRYSTAL, 16.200 25PPM 25OHM
⚠ X4010	23153721	CERAMIC RESONATOR, 503KHZ
⚠ XA03	23153394	CRYSTAL
XZ01	23153529	CRYSTAL RESONATOR, 20MHZ AT-51
ZA01	23103778	FERRITE CORE, TFE1008
ZA02	23103914	CORE, FERRITE CORE 15X22X7 TFE1015AD
PC BOARD ASSEMBLIES		
✻ U001A	75000792	PCB SIGNAL PD1767A1
✻ U001B	75000793	PCB PB UNIT FRONT/AV PD1767A2
✻ U001C	75000794	PCB PB UNIT AV2 PD1767A3
✻ U001D	75000795	PCB PB UNIT POW SW PD1767A4
✻ U001E	75000796	PCB PB UNIT KEY SW PD1767A5
✻ U001F	75000797	PCB PB UNIT LED/RMT PD1767A6
✻ U001G	75000798	PCB PB UNIT D-REWRITE PD1767A7
✻ U002A	75000799	PCB PB UNIT TN/AOUT PD1768A1
✻ U002B	75000800	PCB PB UNIT PC INPUT PD1768A2
✻ U003	75000791	PCB SCALER PD1769-1
✻⚠ U800	23122467	UNIT, POWER BLOCK MODULE 1H198W
TUNER		
⚠ H001	23321398	TUNER, TADF4-003A, EURO IF ALPS
ACCESSORIES		
A701A #1	23067683	CARTON, TOP CASE
#2	23067684	CARTON, TOP CASE
A701B	23067688	CARTON, BOTTOM CASE
A702A	23946764	PACKING, TOP PACKING
A702B	23946765	PACKING, BOTTOM PACKING
A703	23945143	BAG, PROTECTIVE
A705	23518043	PACKING, JOINT
⚠ K902	23306469	REMOCON HAND UNIT, CT-90126
⚠ Y101A	23566309	OWNERS MANUAL, E LCD
⚠ Y101B #2	23566310	OWNERS MANUAL, F LCD
⚠ Y101C #2	23566311	OWNERS MANUAL, DEUT G LCD

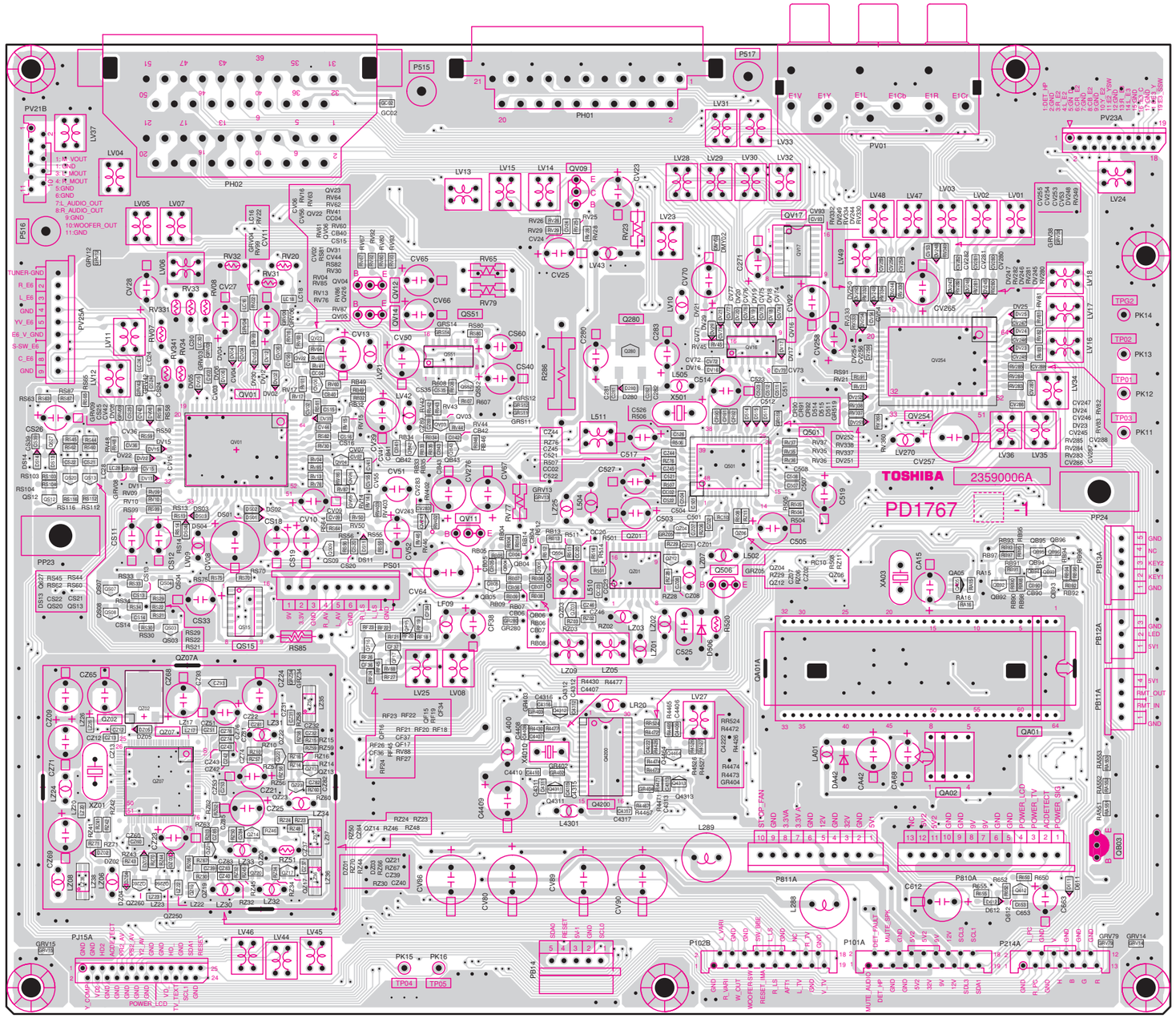
Location No.	Parts No.	Description
⚠ Y101D #2	23566312	OWNERS MANUAL, S LCD
⚠ Y101E #2	23566313	OWNERS MANUAL, I LCD
⚠ Y101F #2	23566314	OWNERS MANUAL, NEDR O LCD
⚠ Y101G #2	23566315	OWNERS MANUAL, P LCD
Y109	23945015	BAG, POLYETHYLENE COVER 250X400
Y170	23845800	WIRE HOLDER, NYLON66 D6.8
CABINET PARTS		
A201	23532720	COVER, FRONT BEZEL ASSY
A202	23940073	PIECE, PIECE KEY ASSY
A203	23940025	PIECE, PIECE POWER ASSY
A215	23940043	PIECE, CAP P SWITCH
A219	23528375	HOLDER, HOLDER P CORD PAL
A221	23940066	PIECE, REAR AV ASSY
A222	23940063	PIECE, FRONT AV ASSY
A224	23940068	PIECE, TOP AV ASSY
A227	23429048	CABINET, STAND
⚠ A401	23532722	COVER, BACK COVER
A402	23532678	COVER, BC STAND COVER
A406	23532679	COVER, BC TERMINAL COVER
A407	23950113	LABEL, SERIAL NUMBER, TTX3

Location No.	Parts No.	Description

MEMO

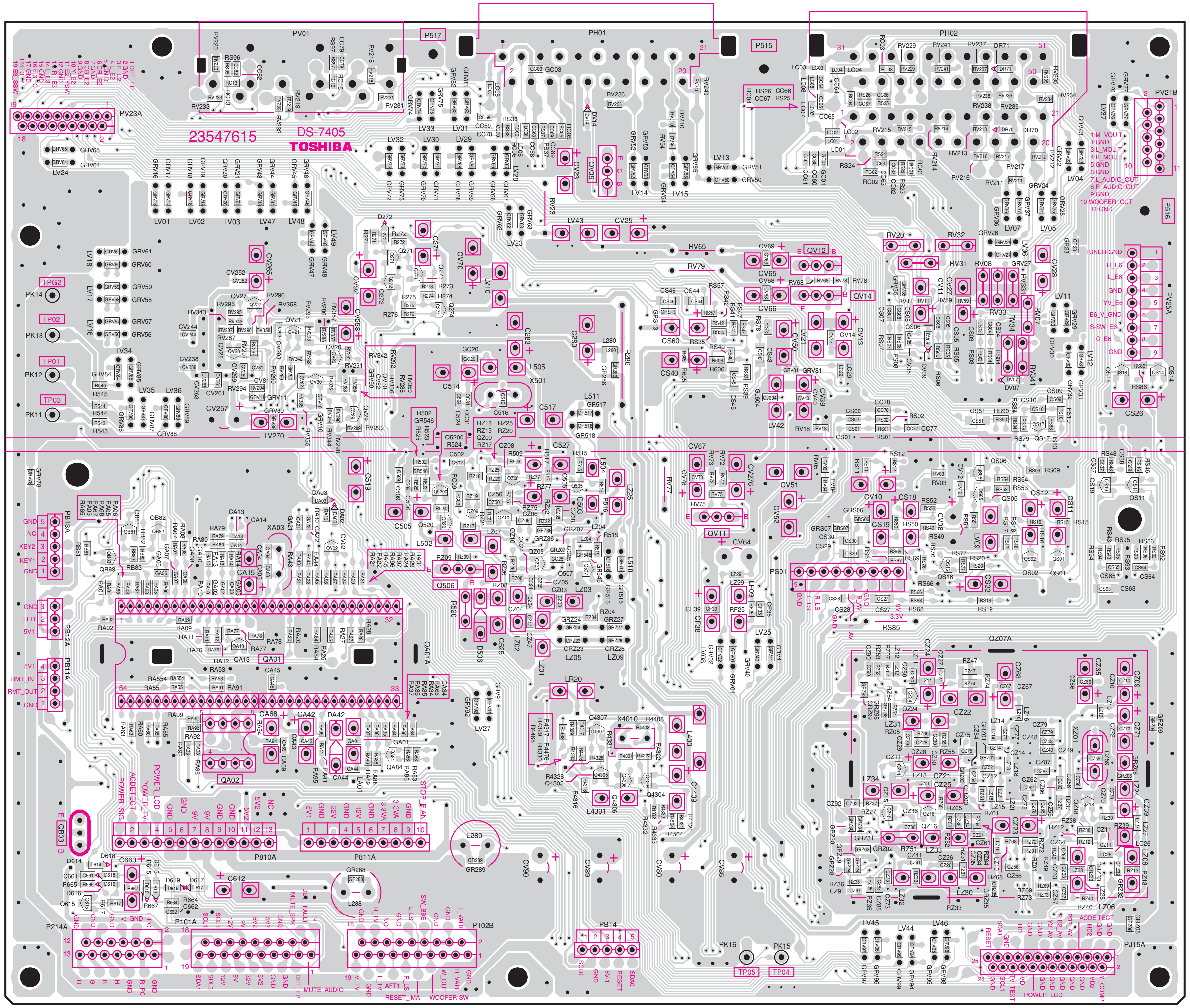
SIGNAL BOARD PD1767A1 (U001A)

TOP (COMPONENT) SIDE

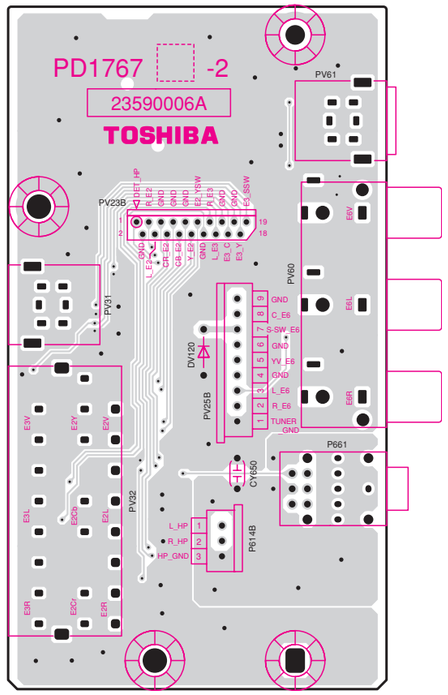


SIGNAL BOARD PD1767A1 (U001A)

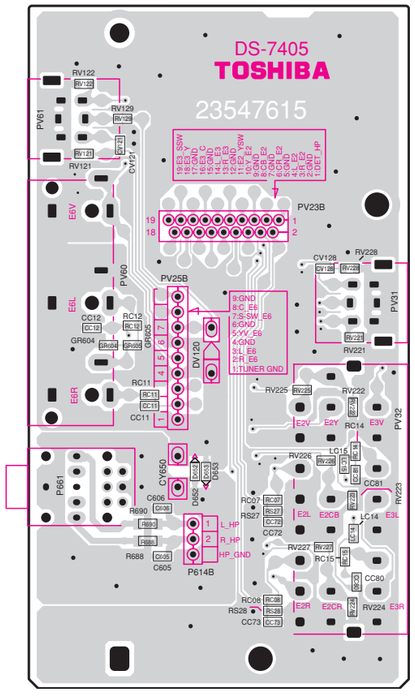
BOTTOM (FOIL) SIDE



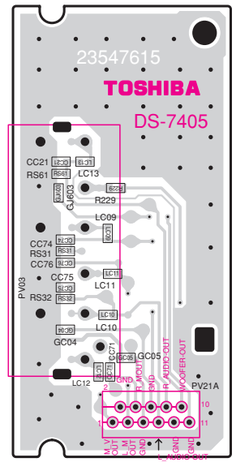
FRONT/AV BOARD PD1767A2 (U001B)
TOP (COMPONENT) SIDE



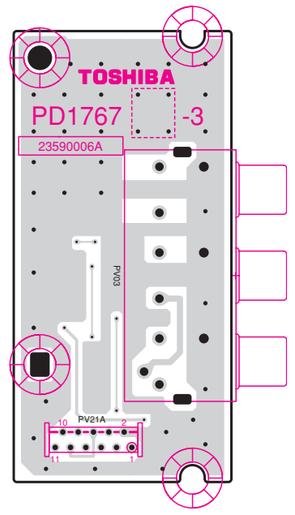
FRONT/AV BOARD PD1767A2 (U001B)
BOTTOM (FOIL) SIDE



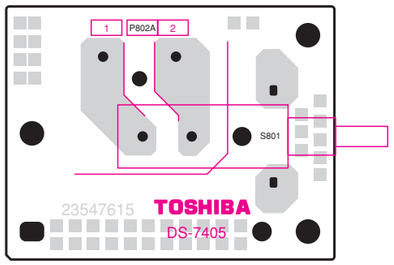
AV2 BOARD PD1767A3 (U001C)
TOP (COMPONENT) SIDE



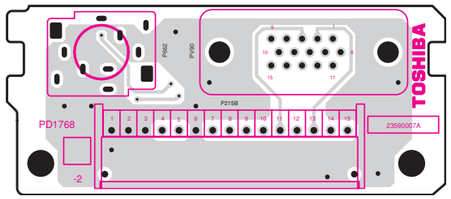
AV2 BOARD PD1767A3 (U001C)
BOTTOM (FOIL) SIDE



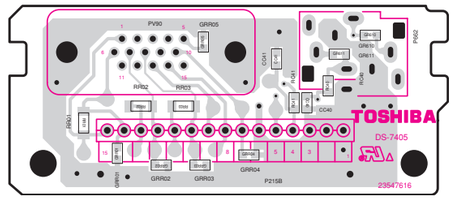
POWER SW BOARD PD1767A4 (U001D)
BOTTOM (FOIL) SIDE



PC INPUT BOARD PD1768A2 (U002B)
TOP (COMPONENT) SIDE

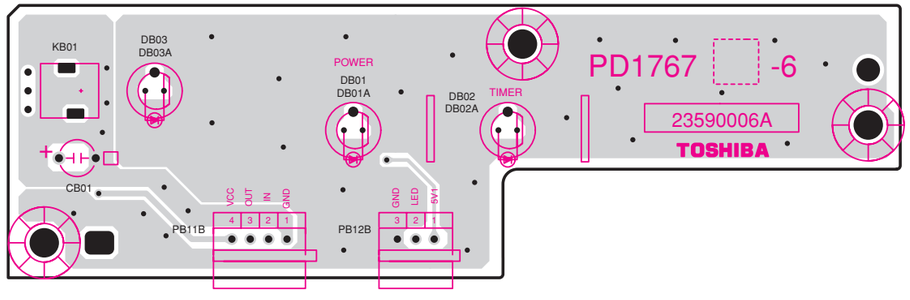


PC INPUT BOARD PD1768A2 (U002B)
BOTTOM (FOIL) SIDE



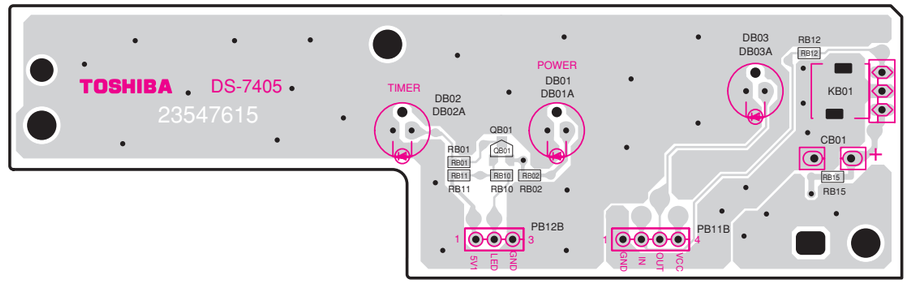
LED/RMT BOARD PD1767A6 (U001F)

TOP (COMPONENT) SIDE



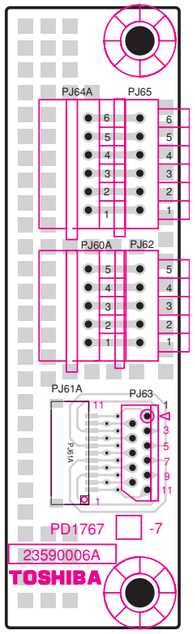
LED/RMT BOARD PD1767A6 (U001F)

BOTTOM (FOIL) SIDE



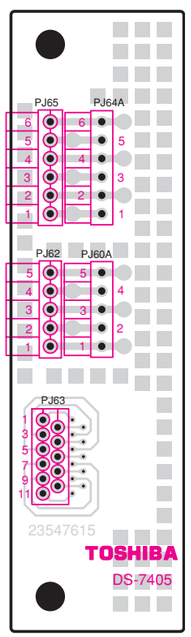
D/REWRITE BOARD PD1767A7 (U001G)

TOP (COMPONENT) SIDE



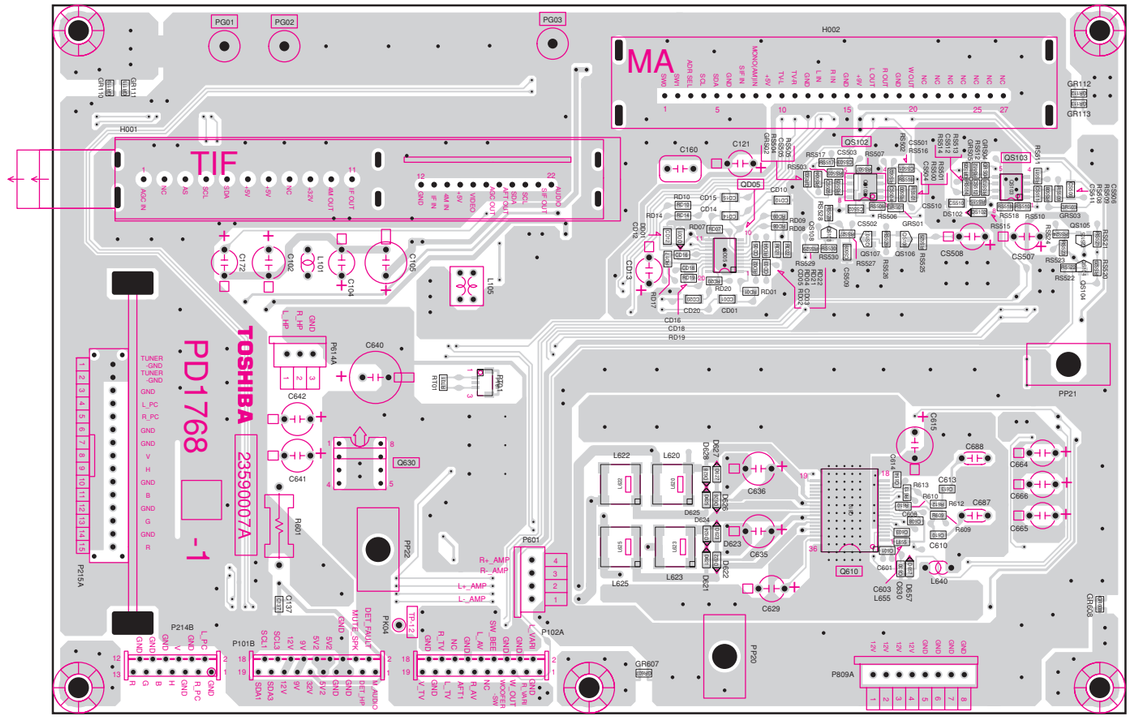
D/REWRITE BOARD PD1767A7 (U001G)

BOTTOM (FOIL) SIDE



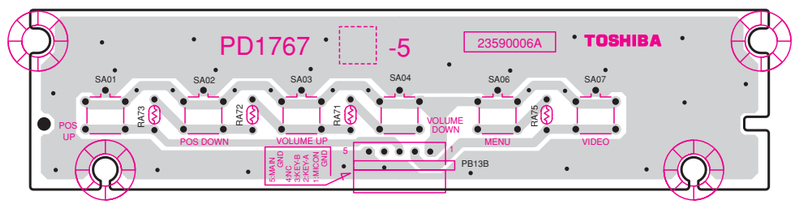
TN/AOUT BOARD PD1768A1 (U002A)

TOP (COMPONENT) SIDE



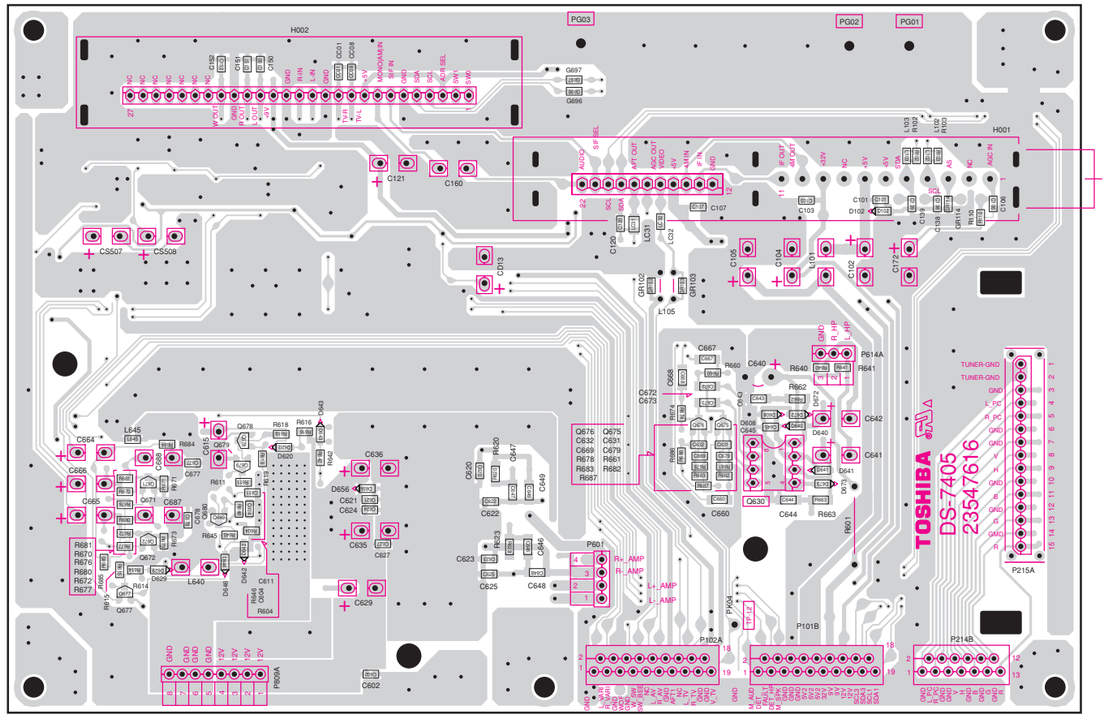
KEY SW BOARD PD1767A5 (U001E)

TOP (COMPONENT) SIDE



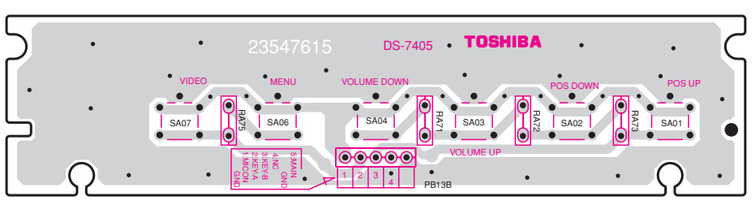
TN/AOUT BOARD PD1768A1 (U002A)

BOTTOM (FOIL) SIDE



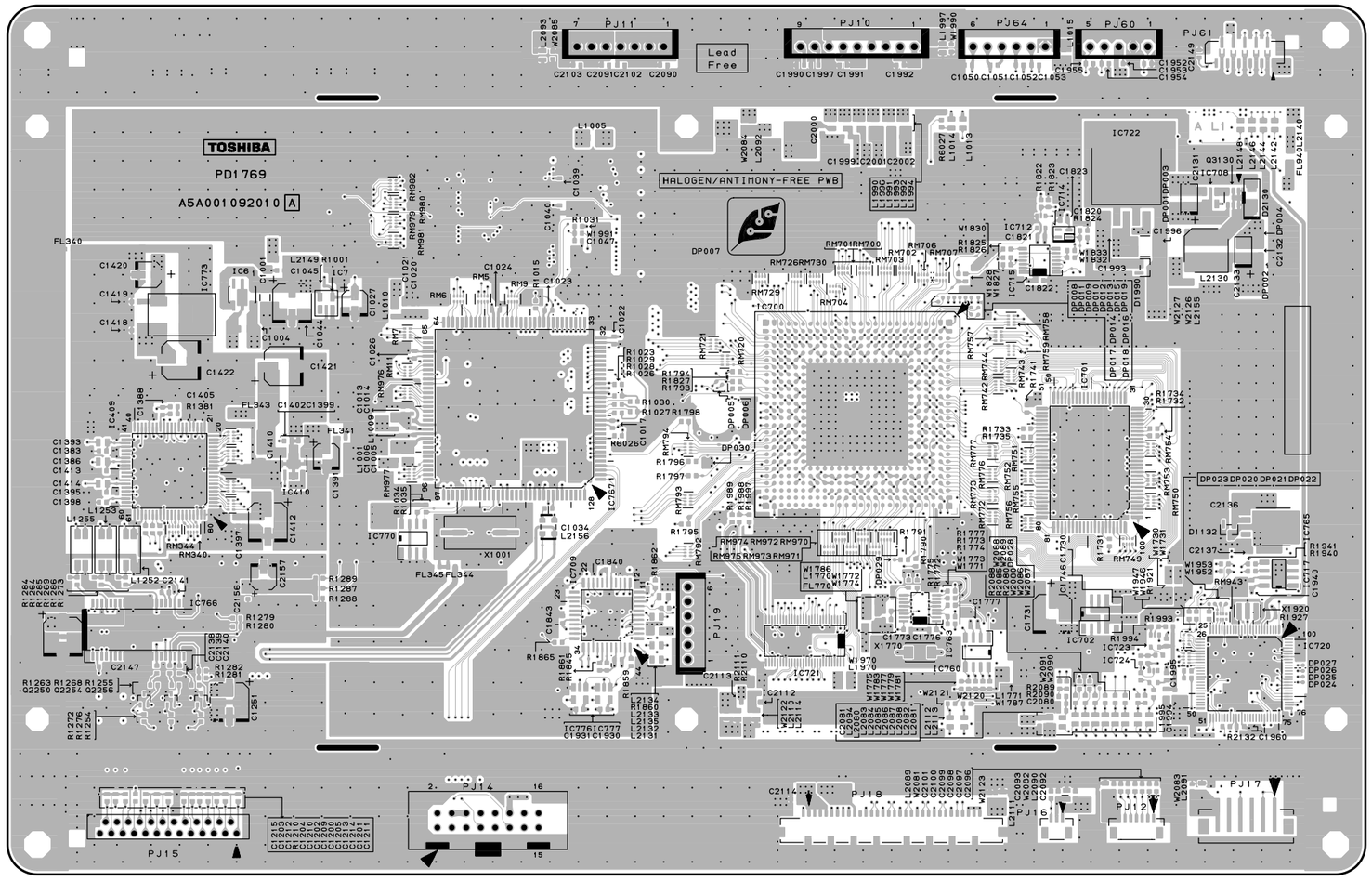
KEY SW BOARD PD1767A5 (U001E)

BOTTOM (FOIL) SIDE



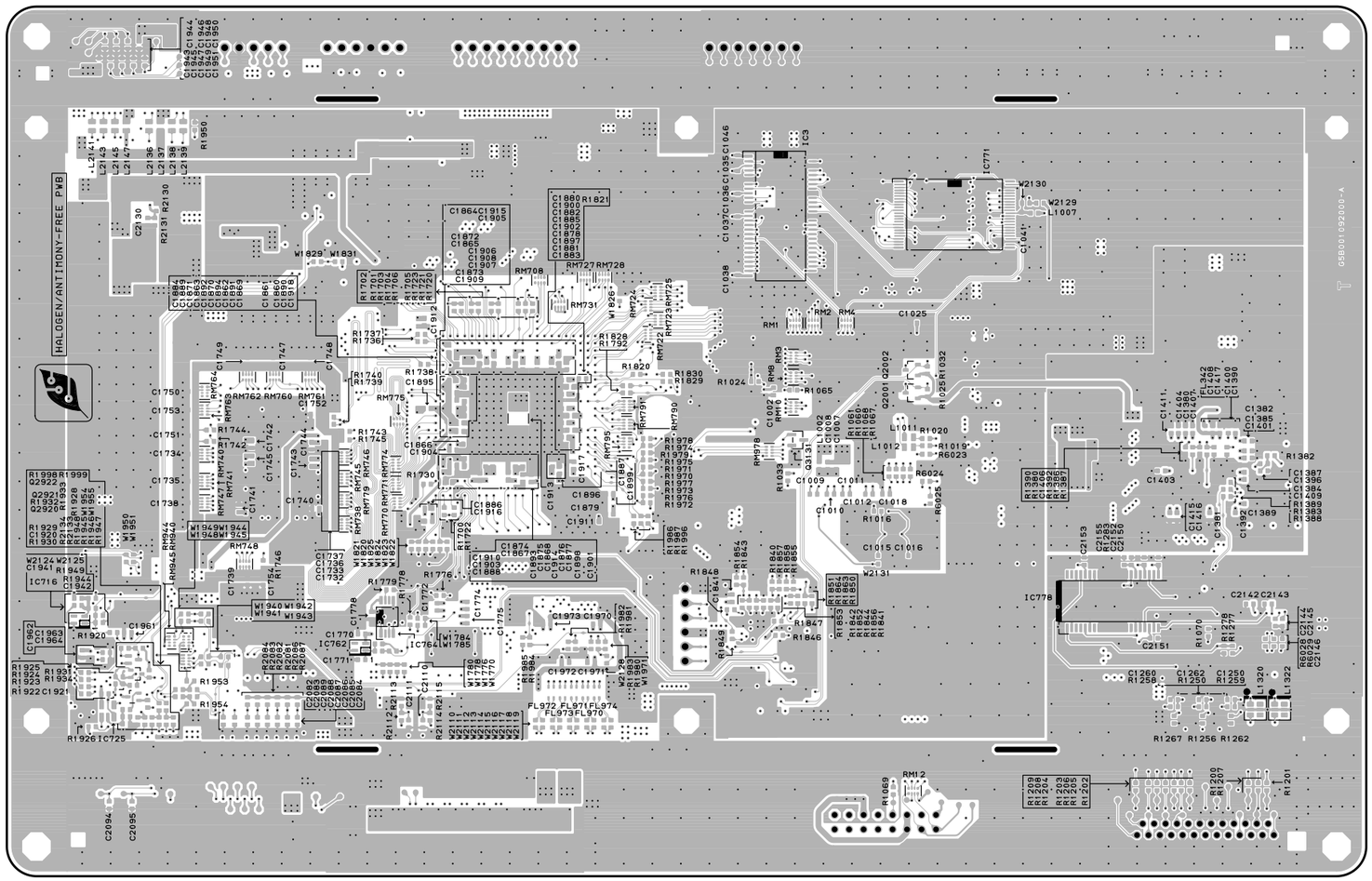
SCALER BOARD PD1769-1 (U003)

TOP (COMPONENT) SIDE

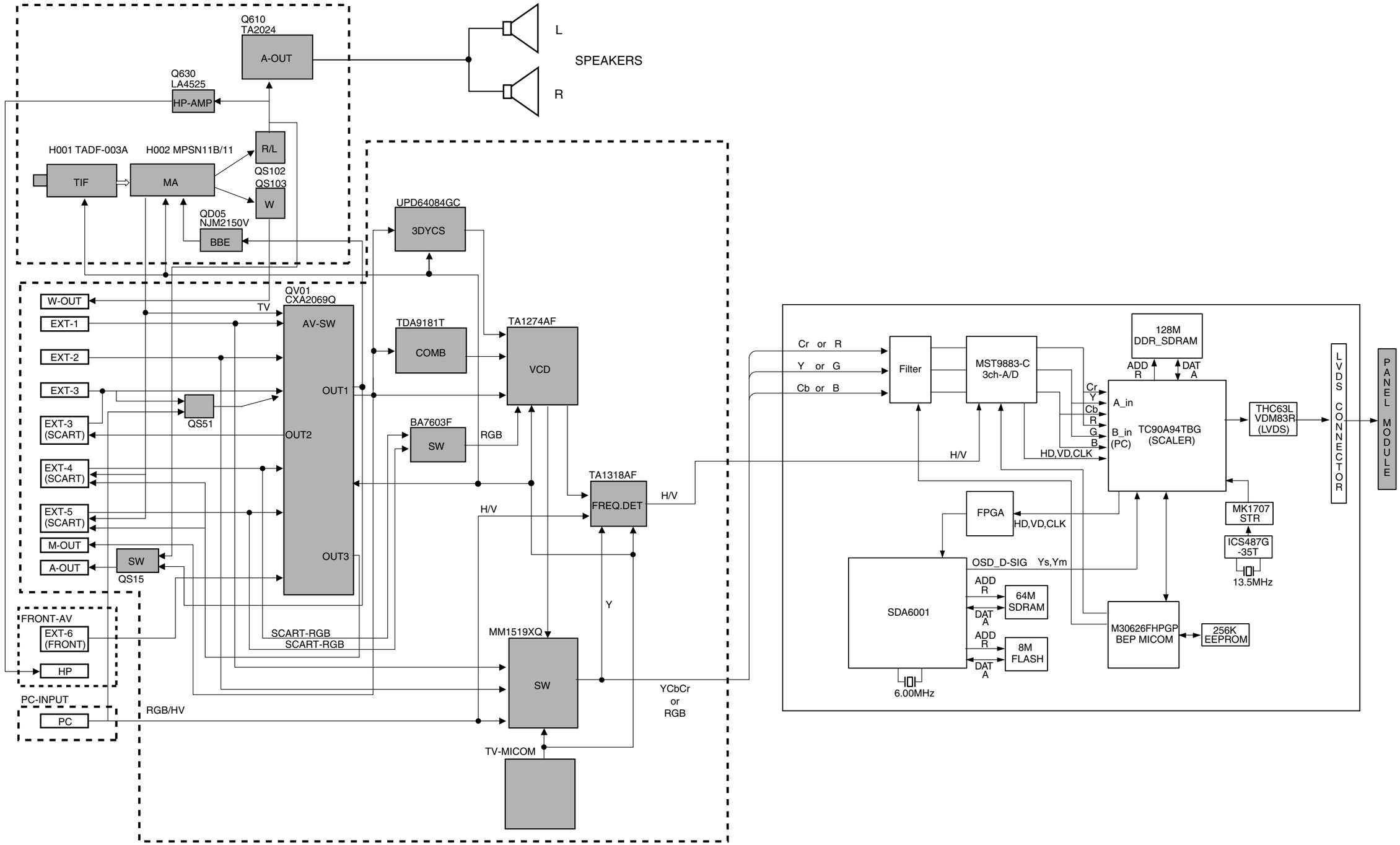


SCALER BOARD PD1769-1 (U003)

BOTTOM (FOIL) SIDE



CIRCUIT BLOCK DIAGRAM



SCHEMATIC DIAGRAM

MODEL : 32WL46B/32WL46G

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON THE MANUAL FOR THIS MODEL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on the MANUAL for this model. Do not degrade the safety of the receiver through improper servicing.

NOTE:

1. RESISTOR Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.
   1/2R = Metal or Metal oxide of 1/2 watt 1/2S = Carbon compsistion of 1/2 watt
   1RF = Fuse resistor of 1 watt 10W = Cement of 10 watt
   K = ±10% G = ±2% F = ±1%
2. CAPACITOR Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in μF, and the values more than 1 in pF.
   All capacitors are ceramic 50V, unless otherwise noted as the following marks.
   —|+|— Electolytic capacitor —|M|— Mylar capacitor
3. The parts indicated with "⚠" have special characteristics, and should be replaced with identical parts only.
4. Voltages read with DIGITAL MULTI-METER from point indicated to chassing ground, using a color bar signal with all controls at normal, line voltage at 220 volts.
5. Waveforms are taken receiving color bar signal with enough sensitivity.
6. Voltage reading shown are nominal values and may vary ±20% except H.V.

■ SCHEMATIC DIAGRAM STRUCTURE:

- SIGNAL Circuit
  - CONNECTOR [SHEET– 1/12] 1/49
  - AV [SHEET– 2/12] 2/49
  - Y/PB/PR_SW [SHEET– 3/12] 3/49
  - MICOM/TEXT [SHEET– 4/12] 4/49
  - V/C [SHEET– 5/12] 5/49
  - SIGNAL from AV [SHEET– 6/12] 6/49
  - PC AUDIO SWITCHING [SHEET– 7/12] 7/49
  - AUDIO-MUTE [SHEET– 8/12] 8/49
  - MON OUTPUT [SHEET– 9/12] 9/49
  - COLOUR DIFFERENCE SWITCHING [SHEET– 10/12] 10/49
  - SYNC_SW [SHEET– 11/12] 11/49
  - 3D YCS [SHEET– 12/12] 12/49
- TN-AOUT Circuit
  - CONNECTOR [SHEET– 1/7] 13/49
  - TIF & MA [SHEET– 2/7] 14/49
  - AUDIO GAIN CORRECTION [SHEET– 3/7] 15/49
  - A-OUT [SHEET– 4/7] 16/49
  - HP-AMP [SHEET– 5/7] 17/49
  - PC_INPUT [SHEET– 6/7] 18/49
  - TEMP SENSOR [SHEET– 7/7] 19/49
- FRONT-AV Circuit 20/49
- AV-2 Circuit 21/49
- OVERALL CONNECTION Circuit 22/49
- KEY SW Circuit 23/49
- LED/RMT Circuit 24/49
- POWER SW Circuit 25/49
- DATA_REWRITE Circuit 26/49
- SCALER Circuit
  - DIGITAL INPUT [SHEET– 1/23] 27/49
  - CAPTURE INPUT [SHEET– 2/23] 28/49
  - MEMORY CONNECTION [SHEET– 3/23] 29/49
  - PLL [SHEET– 4/23] 30/49
  - IIC [SHEET– 5/23] 31/49
  - POWER [SHEET– 6/23] 32/49
  - SUB MICOM (1) [SHEET– 7/23] 33/49
  - SUB MICOM (2) [SHEET– 8/23] 34/49
  - SUB MICOM (3) [SHEET– 9/23] 35/49
  - LVDS OUT [SHEET– 10/23] 36/49
  - POWER CONNECTOR AND DIMMING [SHEET– 11/23] 37/49
  - LVDS POWER AND OTHERS [SHEET– 12/23] 38/49
  - LVDS OUT (SHARP LCD) [SHEET– 13/23] 39/49
  - CONNECTOR [SHEET– 14/23] 40/49
  - 3CHADC2_LPF [SHEET– 15/23] 41/49
  - 3CHADC1 [SHEET– 16/23] 42/49
  - DC/DC CONVERTER [SHEET– 17/23] 43/49
  - M2 (1) [SHEET– 18/23] 44/49
  - M2 (2) [SHEET– 19/23] 45/49
  - M2 (3) [SHEET– 20/23] 46/49
  - M2 (4) [SHEET– 21/23] 47/49
  - M2 (5) [SHEET– 22/23] 48/49
  - M2 (6) [SHEET– 23/23] 49/49

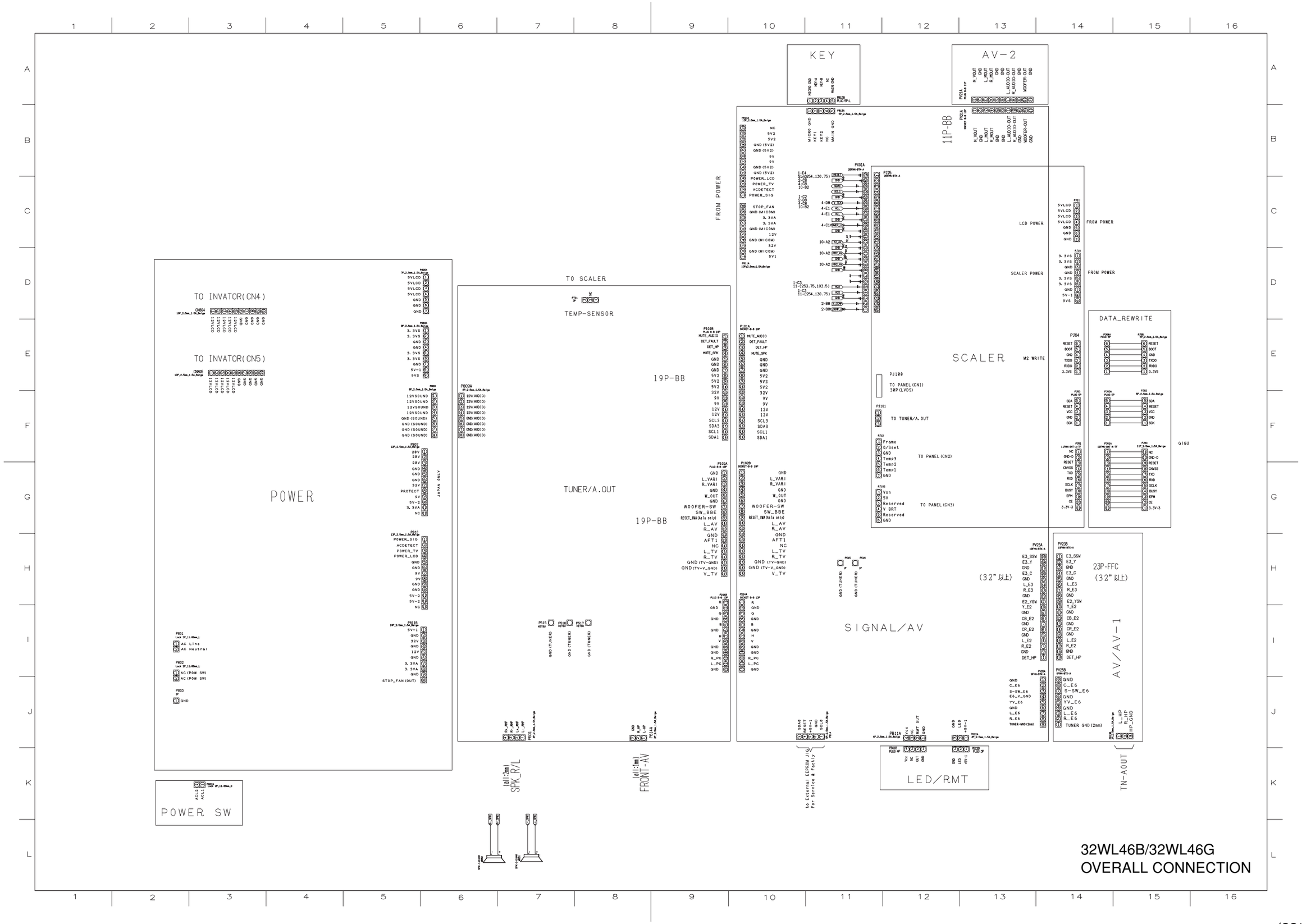
MEMO

SPECIFICATIONS		
MODEL	**32WL46B**	**32WL46G**
Power source	110 - 240V AC, 50/60 Hz	
Power consumption	175 W, 1.0 W (standby)	
Dimensions	819 mm (W) x 645 mm (H) x 308 mm (D)	
Mass (Weight)	*** kg	
Stereo	Nicam/MPX	
Speakers	60 x 120 mm 2 pcs.	
Broadcast systems/channels	PAL-I UHF UK21-UK69 PAL-B/G UHF E21-E69 VHF E2-E12, S1-S41 SECAM-L UHF F21-F69 VHF F2-F10, B-Q SECAM-D/K UHF R21-R69 VHF R1-R12	
Video input	PAL, SECAM, NTSC 3.58/4.43	
Aspect ratio	16 : 9	
Number of picture Elements	1366 (H) dots x 768 (V) dots	
Programme positions	100	
Audio power (at 10% distortion)	10 W + 10 W	
Input/Output terminals	EXT1 Input Component video Y, P_B/C_B, P_R/C_R Phono jacks A/V EXT2 Input Component video Y, P_B/C_B, P_R/C_R Phono jacks A/V EXT3 Input/Output 21 pin Scart A/V, S-video, Selectable output Input Mini DIN 4 pin S-video Input Phono jacks A/V EXT4 Input/Output 21 pin Scart RGB, A/V, TV signal EXT5 Input/Output 21 pin Scart RGB, A/V, TV signal EXT6 Input Mini DIN 4 pin S-video Phono jacks A/V RGB/PC Input Mini D-sub 15 pin Analog RGB signal Audio Input 3.5 mm stereo mini jack Monitor Output Phono jacks A/V Audio Output Phono jacks Audio L + R (Fixed/Variable) External Woofer Output Phono jack Bass Line out (Variable) Headphones jack 3.5 mm stereo	
Operating condition	Temperature 0 – 35° C Humidity 20 – 80% (No moisture condensation)	

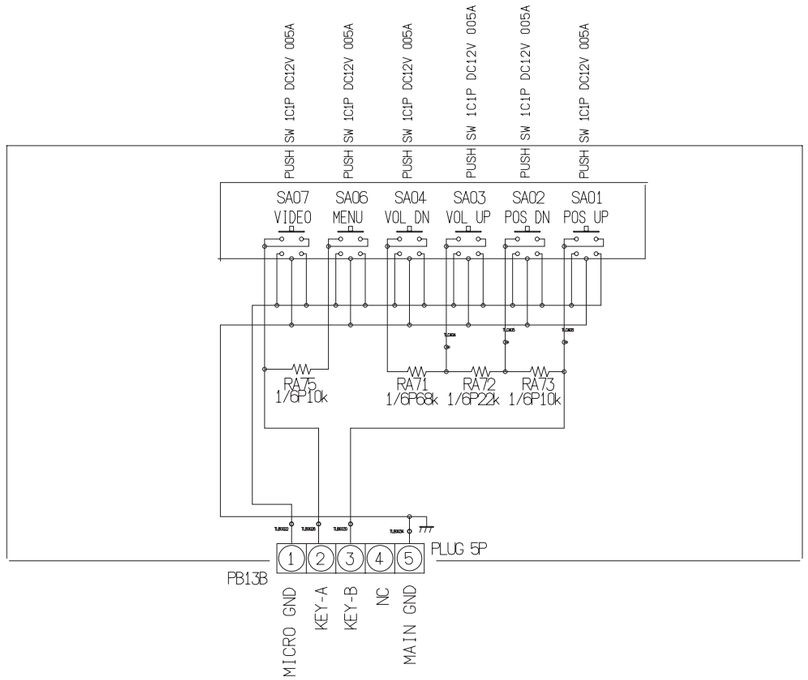
* Please refer to owner's manual in detail.

– END –

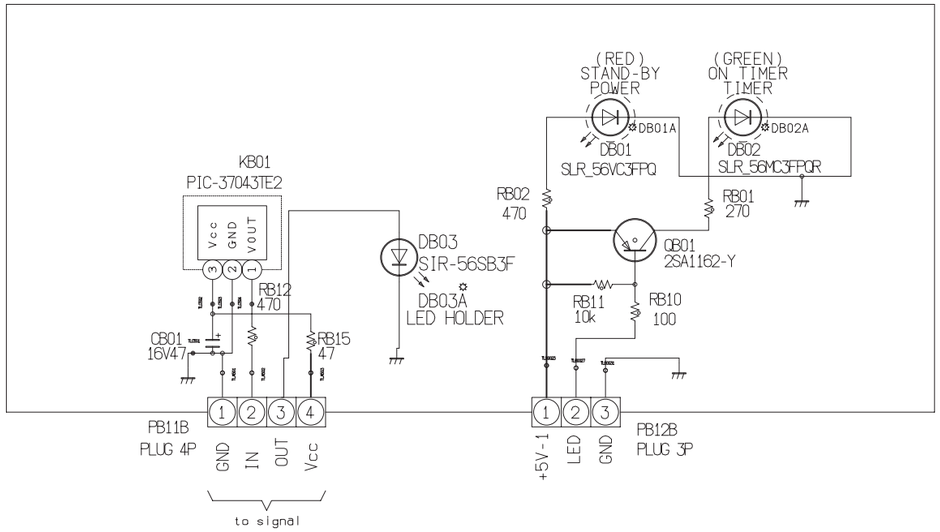
TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN



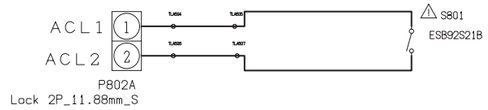
32WL46B/32WL46G
OVERALL CONNECTION



32WL46B/32WL46G
KEY SW

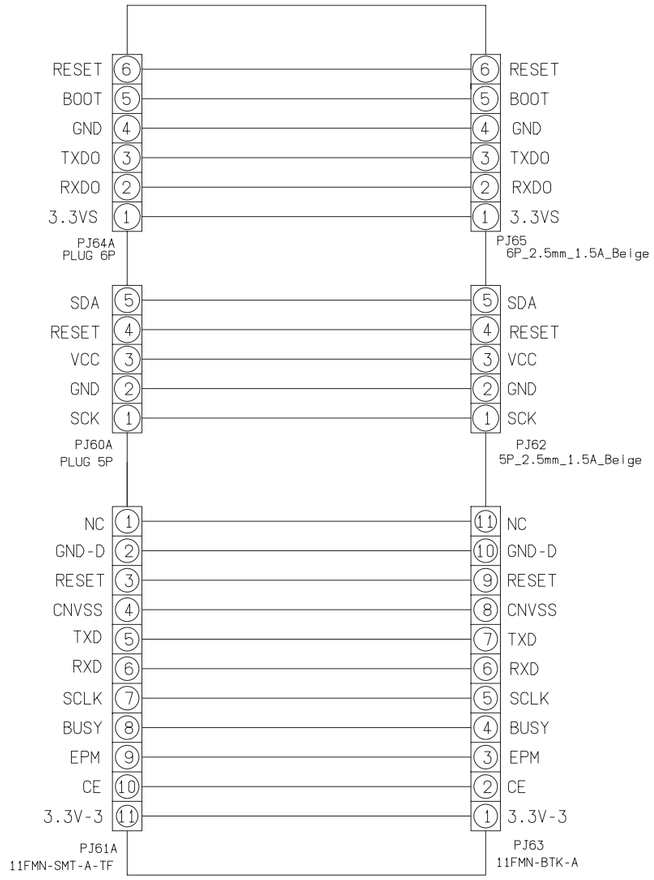


32WL46B/32WL46G
LED/RMT



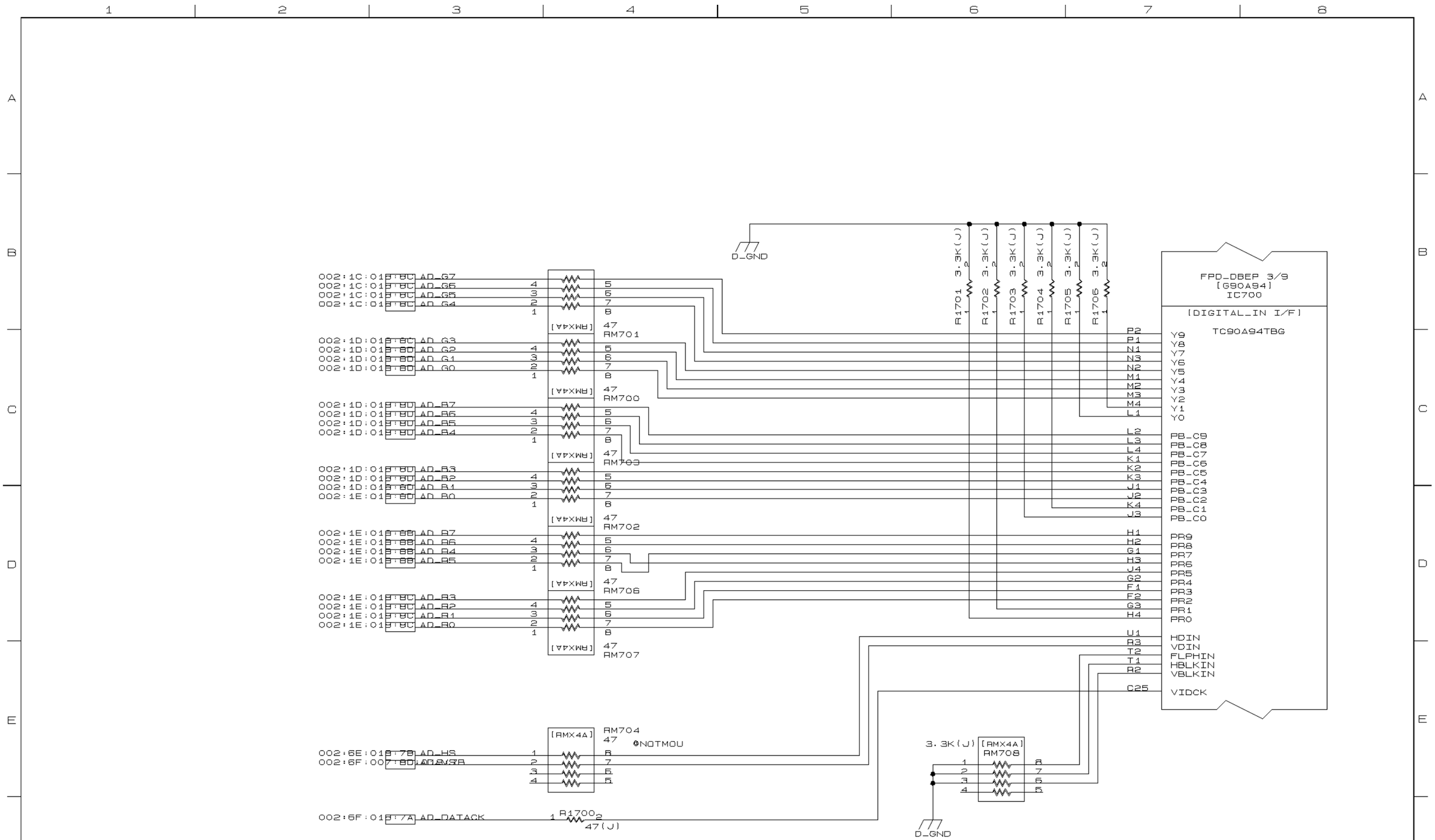
32WL46B/32WL46G
POWER SW

SCALER

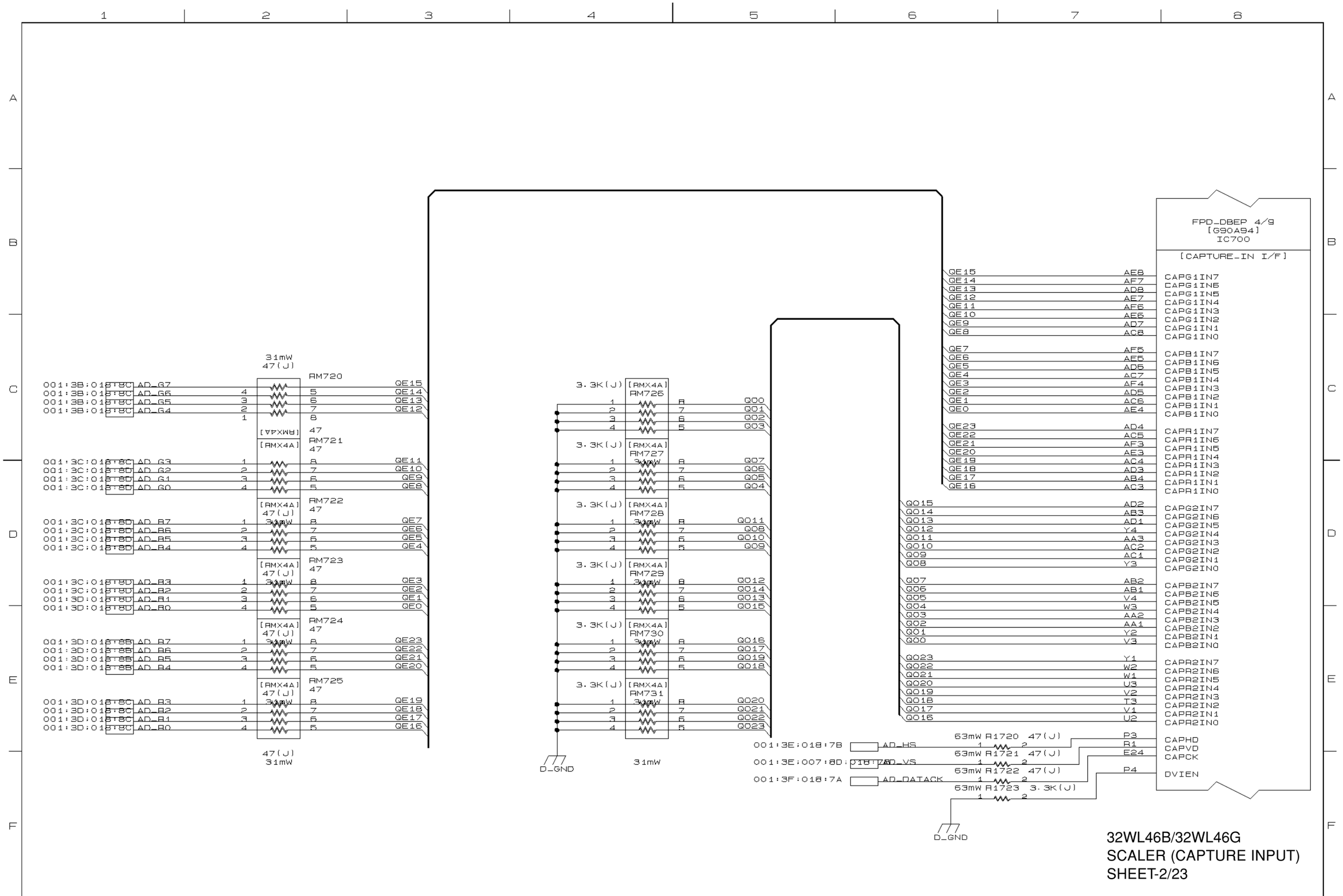


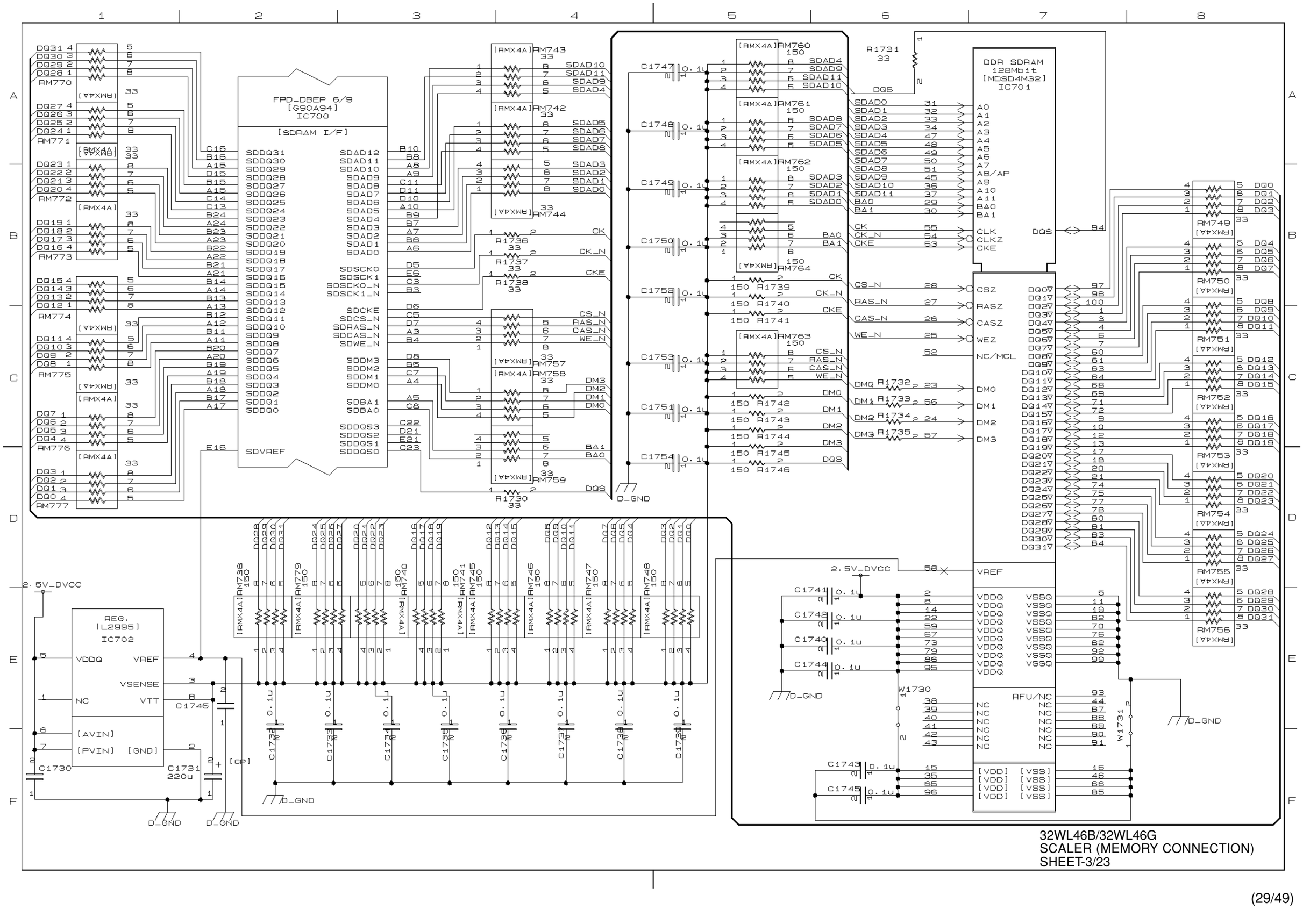
JIGU

32WL46B/32WL46G
DATA_REWRITE

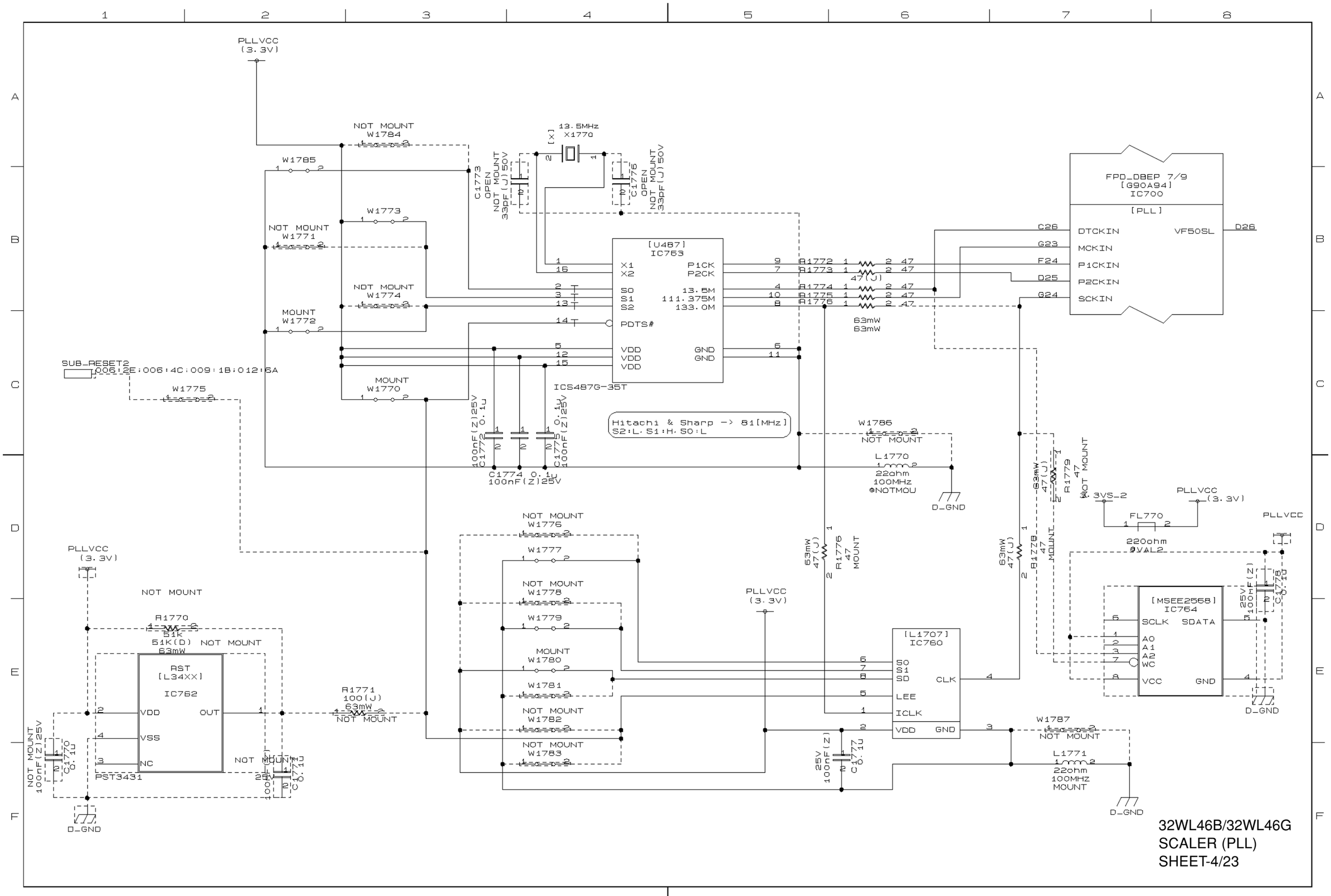


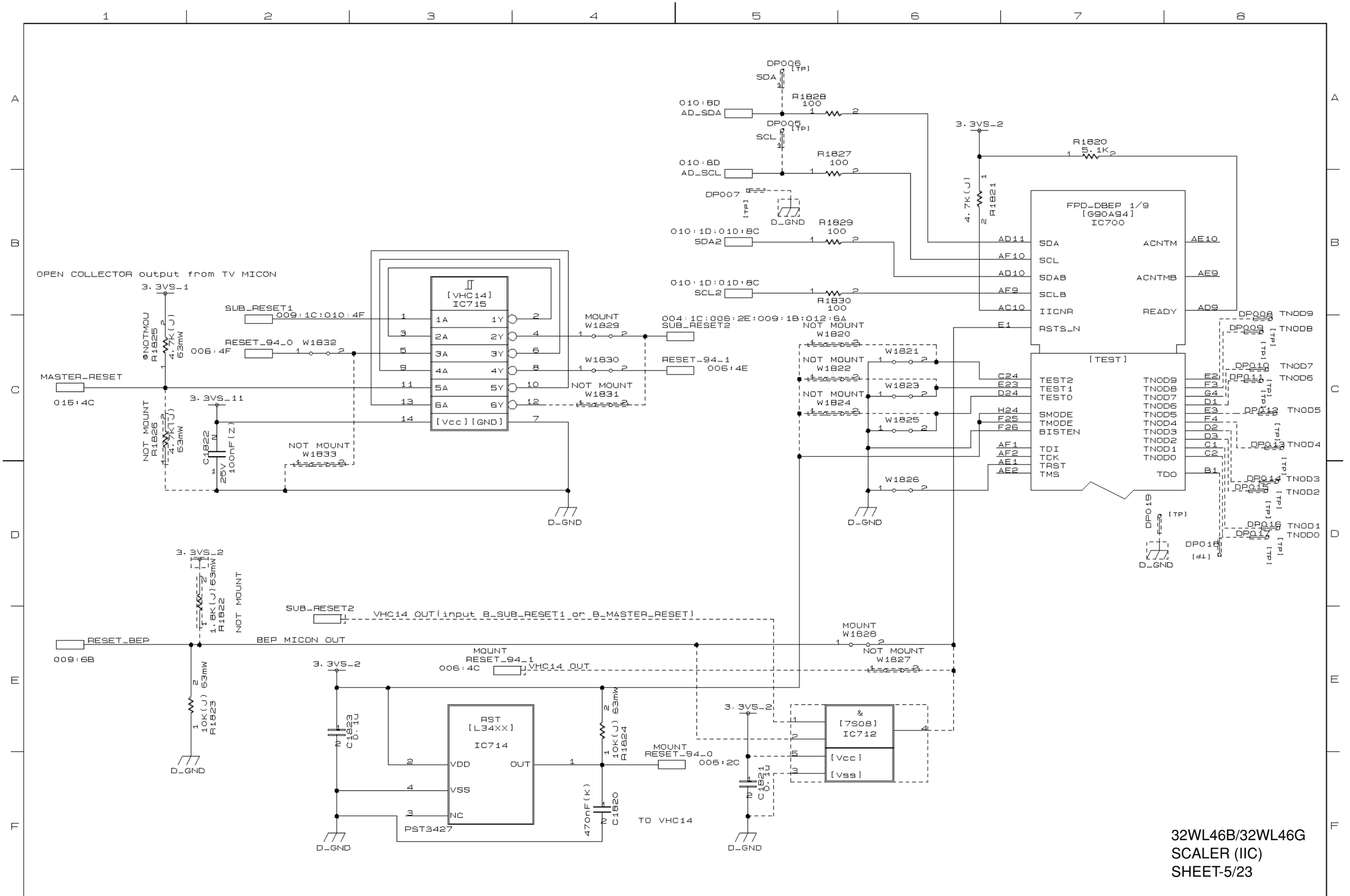
32WL46B/32WL46G
SCALER (DIGITAL INPUT)
SHEET-1/23

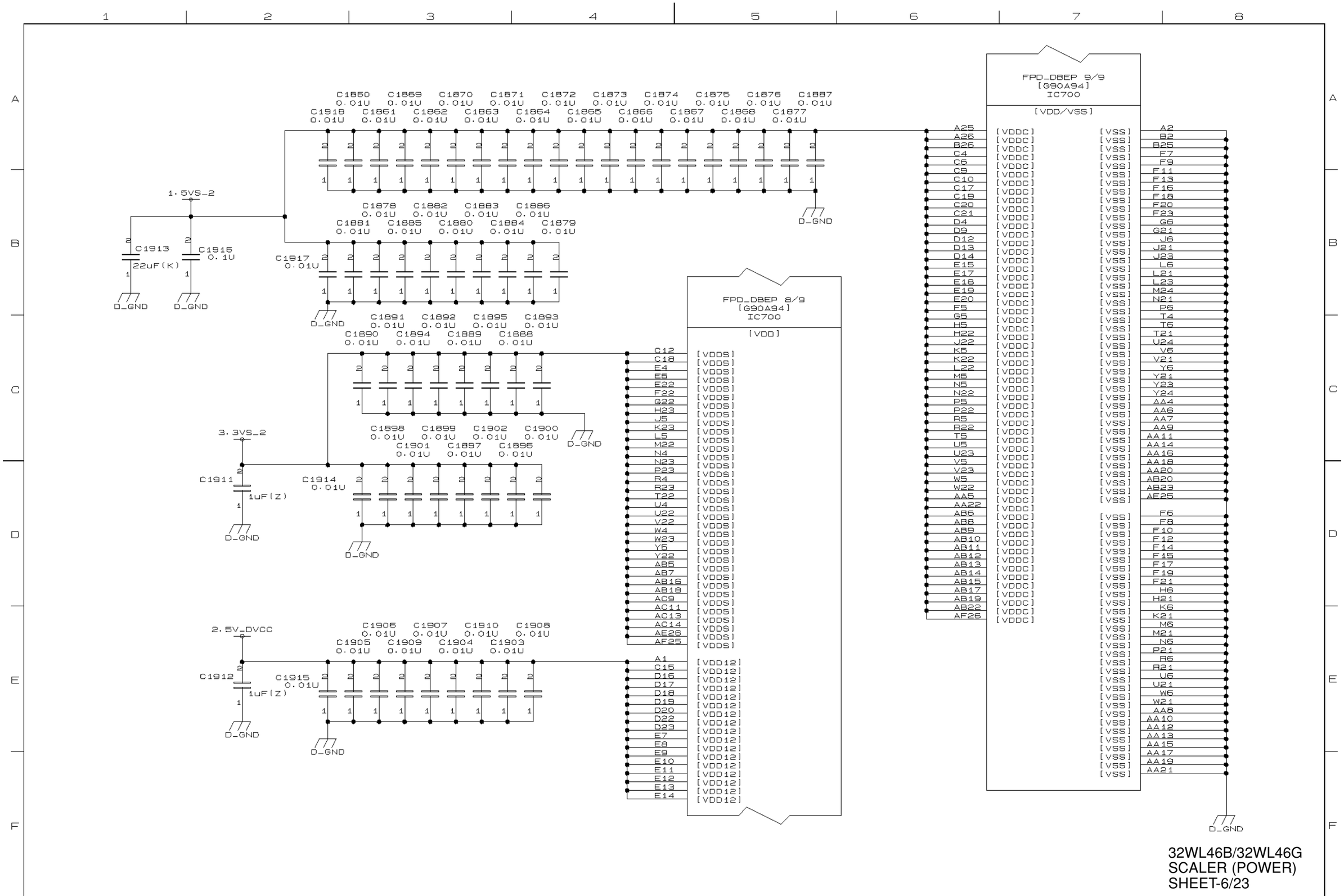

FPD_DBEP 4/9
[G90A94]
IC700
[CAPTURE_IN I/F]
CAPG1IN7
CAPG1IN6
CAPG1IN5
CAPG1IN4
CAPG1IN3
CAPG1IN2
CAPG1IN1
CAPG1IN0
CAPB1IN7
CAPB1IN6
CAPB1IN5
CAPB1IN4
CAPB1IN3
CAPB1IN2
CAPB1IN1
CAPB1IN0
CAPR1IN7
CAPR1IN6
CAPR1IN5
CAPR1IN4
CAPR1IN3
CAPR1IN2
CAPR1IN1
CAPR1IN0
CAPG2IN7
CAPG2IN6
CAPG2IN5
CAPG2IN4
CAPG2IN3
CAPG2IN2
CAPG2IN1
CAPG2IN0
CAPB2IN7
CAPB2IN6
CAPB2IN5
CAPB2IN4
CAPB2IN3
CAPB2IN2
CAPB2IN1
CAPB2IN0
CAPR2IN7
CAPR2IN6
CAPR2IN5
CAPR2IN4
CAPR2IN3
CAPR2IN2
CAPR2IN1
CAPR2IN0
CAPHD
CAPVD
CAPCK
DVIEN
AD_G7
AD_G6
AD_G5
AD_G4
AD_G3
AD_G2
AD_G1
AD_G0
AD_R7
AD_R6
AD_R5
AD_R4
AD_R3
AD_R2
AD_R1
AD_R0
AD_B7
AD_B6
AD_B5
AD_B4
AD_B3
AD_B2
AD_B1
AD_B0
AD_HS
AD_VS
AD_DATACK
D_GND
31mW
47(J)
3.3K(J)
[RMX4A]
RM720
RM721
RM722
RM723
RM724
RM725
RM726
RM727
RM728
RM729
RM730
RM731
R1720 47(J)
R1721 47(J)
R1722 47(J)
R1723 3.3K(J)
63mW
QE15
QE14
QE13
QE12
QE11
QE10
QE9
QE8
QE7
QE6
QE5
QE4
QE3
QE2
QE1
QE0
QE23
QE22
QE21
QE20
QE19
QE18
QE17
QE16
Q00
Q01
Q02
Q03
Q04
Q05
Q06
Q07
Q08
Q09
Q010
Q011
Q012
Q013
Q014
Q015
Q016
Q017
Q018
Q019
Q020
Q021
Q022
Q023
AE8
AF7
AD8
AE7
AF6
AE6
AD7
AC8
AF5
AE5
AD5
AC7
AF4
AD5
AC6
AE4
AD4
AC5
AF3
AE3
AC4
AD3
AB4
AC3
AD2
AB3
AD1
Y4
AA3
AC2
AC1
Y3
AB2
AB1
V4
W3
AA2
AA1
Y2
V3
Y1
W2
W1
U3
V2
T3
V1
U2
P3
R1
E24
P4
32WL46B/32WL46G
SCALER (CAPTURE INPUT)
SHEET-2/23



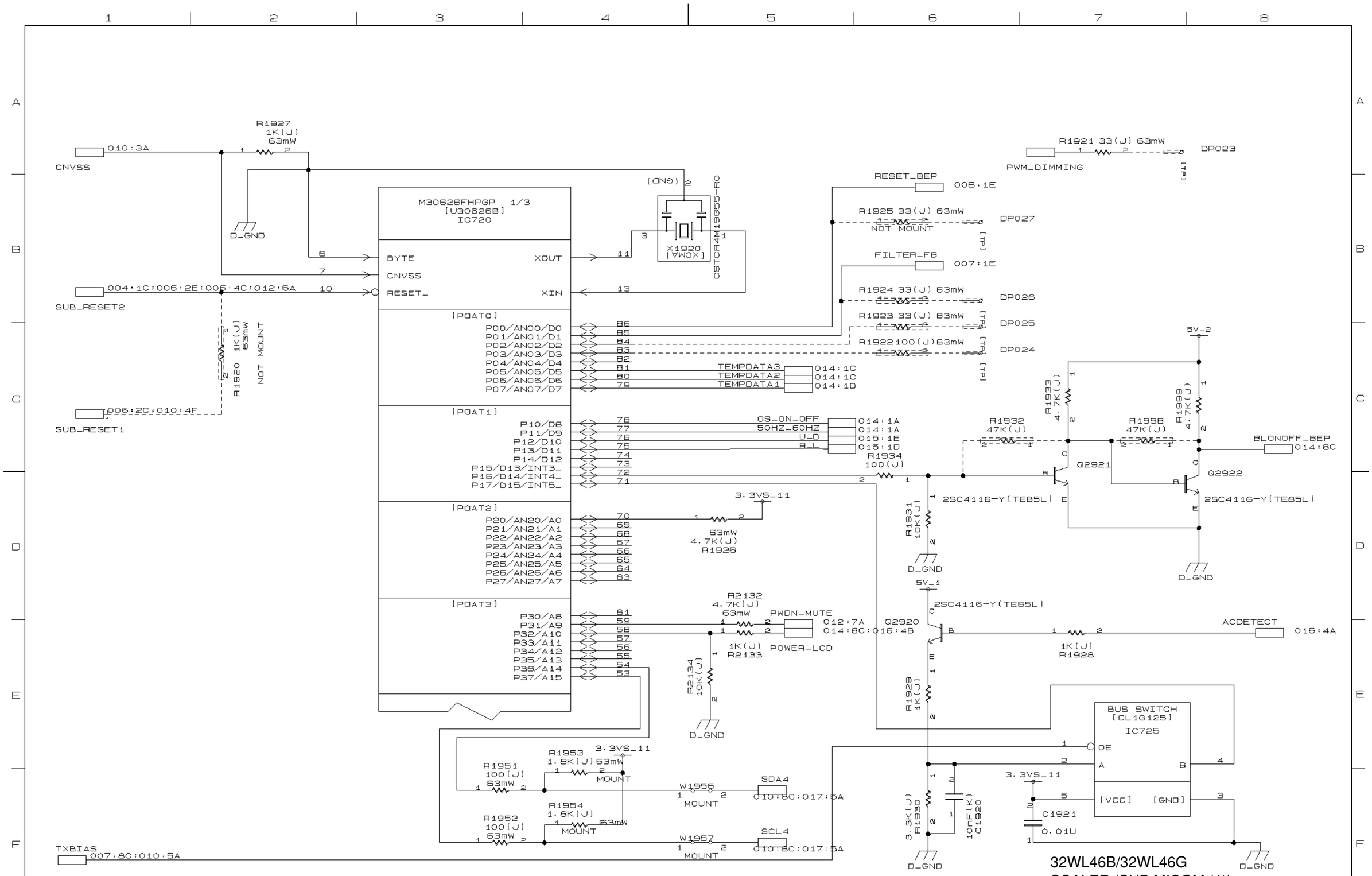
32WL46B/32WL46G
SCALER (MEMORY CONNECTION)
SHEET-3/23


PLLVCC (3.3V)
NOT MOUNT W1784
W1785
W1773
NOT MOUNT W1771
NOT MOUNT W1774
MOUNT W1772
MOUNT W1770
W1775
SUB_RESET2
006:2E:006:4C:009:1B:012:6A
13.5MHz X1770
C1773 OPEN NOT MOUNT 33pF(J)50V
C1775 OPEN NOT MOUNT 33pF(J)50V
[U487] IC763
X1
X2
S0
S1
S2
PDTS#
VDD
VDD
VDD
P1CK
P2CK
13.5M
111.375M
133.0M
GND
GND
ICS487G-35T
Hitachi & Sharp -> 81[MHz]
S2:L S1:H S0:L
C1772 100nF(Z)25V 0.1u
C1773 100nF(Z)25V 0.1u
C1774 0.1u 100nF(Z)25V
B1772 47
B1773 47
47(J)
B1774 47
B1775 47
B1776 47
63mW
63mW
FPD_DBEP 7/9 [G90A94] IC700
[PLL]
DTCKIN
MCKIN
P1CKIN
P2CKIN
SCKIN
VF50SL
C26
G23
F24
D25
G24
D26
W1786 NOT MOUNT
L1770 22ohm 100MHz @NOTMOU
D_GND
63mW 47(J) R1779 47 NOT MOUNT
3VS_2
FL770 220ohm @VAL2
PLLVCC (3.3V)
PLLVCC
[MSEE2568] IC764
SCLK
SDATA
A0
A1
A2
WC
VCC
GND
25V 100nF(Z) C1778 0.1u
D_GND
NOT MOUNT W1776
W1777
NOT MOUNT W1778
W1779
MOUNT W1780
W1781
NOT MOUNT W1782
NOT MOUNT W1783
PLLVCC (3.3V)
63mW 47(J) R1776 47 MOUNT
63mW 47(J) R1778 47 MOUNT
[L1707] IC760
S0
S1
SD
LEE
ICLK
VDD
GND
CLK
25V 100nF(Z) C1777 0.1u
W1787 NOT MOUNT
L1771 22ohm 100MHz MOUNT
D_GND
PLLVCC (3.3V)
NOT MOUNT
R1770 51k 51K(D) NOT MOUNT 63mW
RST [L34XX] IC762
VDD
VSS
NC
OUT
PST3431
NOT MOUNT 100nF(Z)25V C1770 0.1u
NOT MOUNT 100nF(Z)25V C1771 0.1u
R1771 100(J) 63mW NOT MOUNT
D_GND
32WL46B/32WL46G
SCALER (PLL)
SHEET-4/23

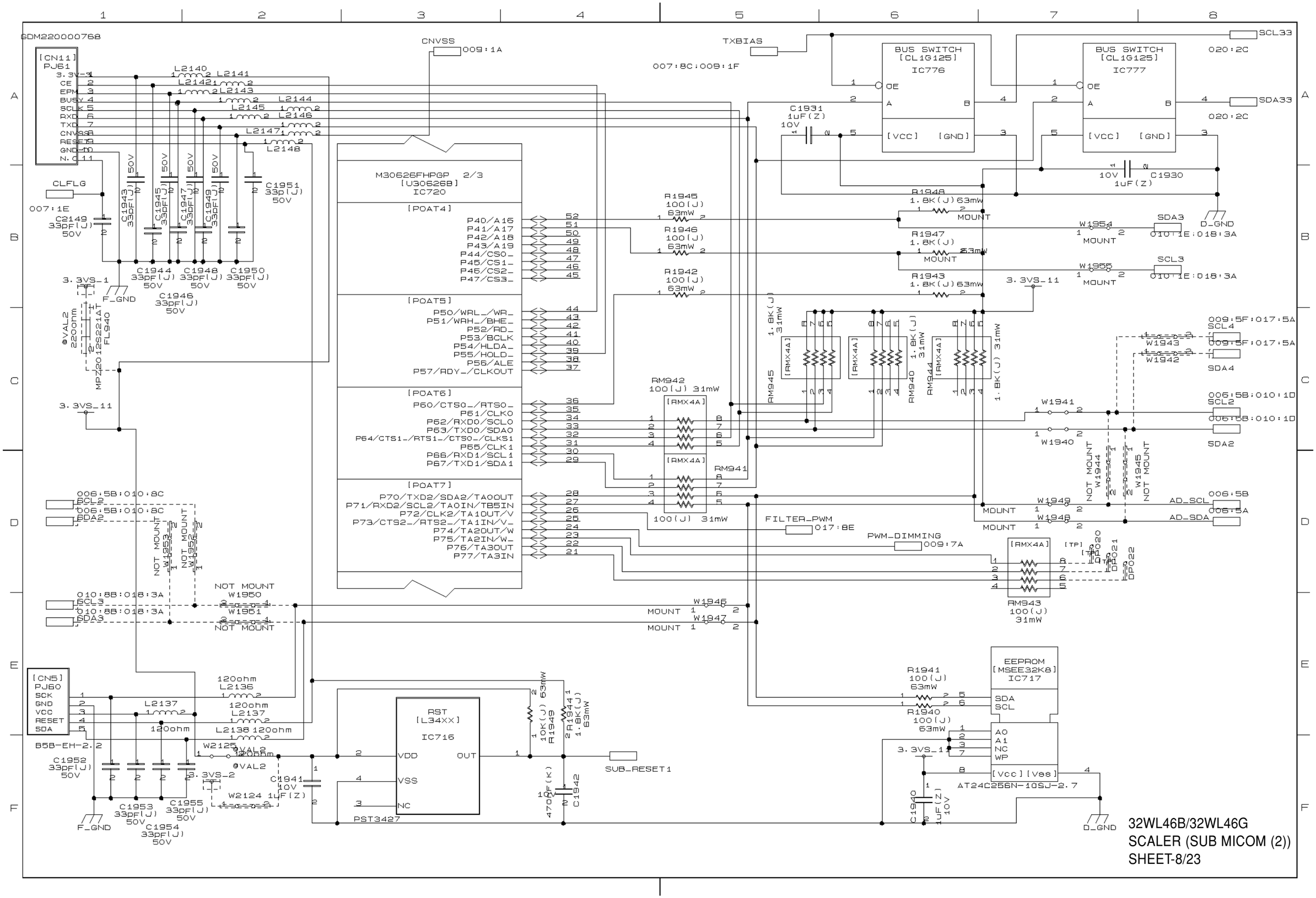

OPEN COLLECTOR output from TV MICON
3.3VS_1
SUB_RESET1
009:1C:010:4F
RESET_94_0
006:4F
W1832
MASTER_RESET
015:4C
@NOTMOU
R1825
4.7K(J)
63mW
NOT MOUNT
R1826
4.7K(J)
63mW
3.3VS_11
C1822
0.1u
25V
100nF(Z)
NOT MOUNT
W1833
D_GND
[VHC14]
IC715
1A
1Y
2A
2Y
3A
3Y
4A
4Y
5A
5Y
6A
6Y
[Vcc]
[GND]
MOUNT
W1829
W1830
NOT MOUNT
W1831
004:1C:006:2E:009:1B:012:6A
SUB_RESET2
RESET_94_1
006:4E
DP006
[TP]
SDA
010:8D
AD_SDA
R1828
100
DP005
[TP]
SCL
010:8D
AD_SCL
R1827
100
DP007
[TP]
D_GND
010:1D:010:8C
SDA2
R1829
100
010:1D:010:8C
SCL2
R1830
100
3.3VS_2
R1820
5.1K
4.7K(J)
R1821
FPD_DBEP 1/9
[G90A94]
IC700
AD11
SDA
AF10
SCL
AD10
SDAB
AF9
SCLB
AC10
IICNR
E1
RSTS_N
ACNTM
AE10
ACNTMB
AE9
READY
AD9
NOT MOUNT
W1820
W1821
NOT MOUNT
W1822
W1823
NOT MOUNT
W1824
W1825
W1826
C24
E23
D24
H24
F25
F26
AF1
AF2
AE1
AE2
[TEST]
TEST2
TEST1
TEST0
SMODE
TMODE
BISTEN
TDI
TCK
TRST
TMS
TNOD9
TNOD8
TNOD7
TNOD6
TNOD5
TNOD4
TNOD3
TNOD2
TNOD1
TNOD0
TDO
E2
F3
G4
D1
E3
F4
D2
D3
C1
C2
B1
DP008
DP009
DP010
DP011
DP012
DP013
DP014
DP015
DP016
DP017
DP018
DP019
SUB_RESET2
VHC14 OUT(input B_SUB_RESET1 or B_MASTER_RESET)
RESET_BEP
009:6B
BEP MICON OUT
MOUNT
W1828
NOT MOUNT
W1827
1.8K(J)63mW
R1822
NOT MOUNT
10K(J) 63mW
R1823
MOUNT
RESET_94_1
006:4C
VHC14 OUT
3.3VS_2
C1823
0.1U
RST
[L34XX]
IC714
VDD
OUT
VSS
NC
PST3427
10K(J) 63mW
R1824
470nF(K)
C1820
TO VHC14
MOUNT
RESET_94_0
006:2C
C1821
0.1U
&
[7S08]
IC712
[Vcc]
[Vss]
32WL46B/32WL46G
SCALER (IIC)
SHEET-5/23



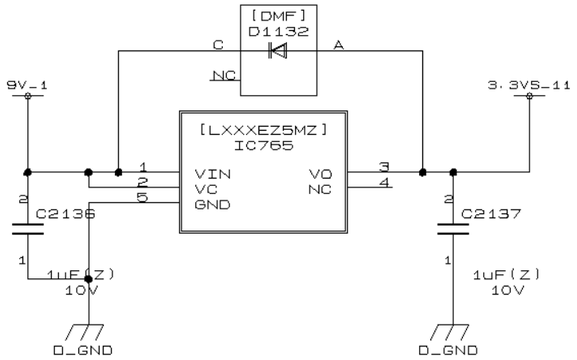
32WL46B/32WL46G
SCALER (POWER)
SHEET-6/23

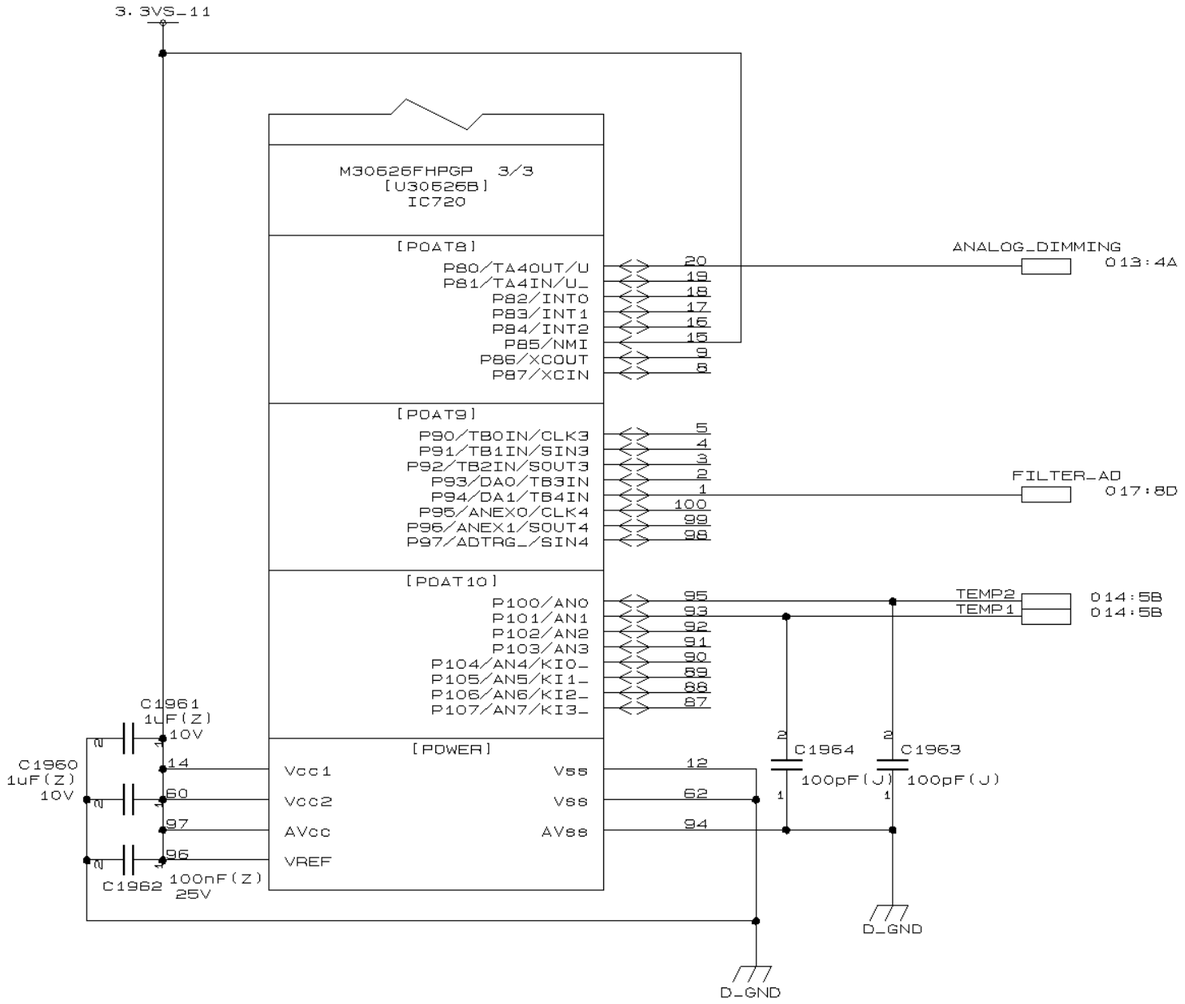


32WL46B/32WL46G
SCALER (SUB MICOM (1))
SHEET-7/23

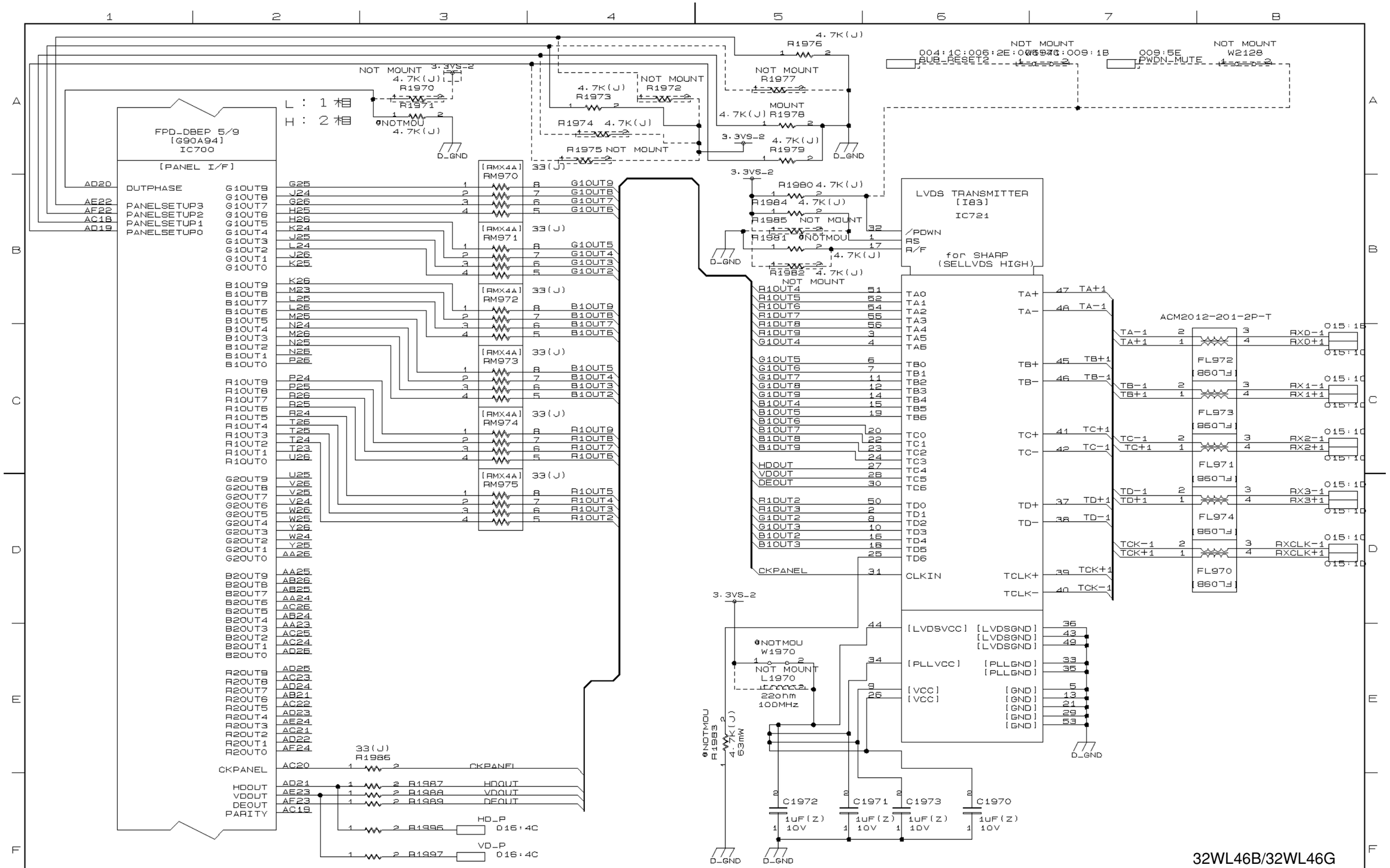


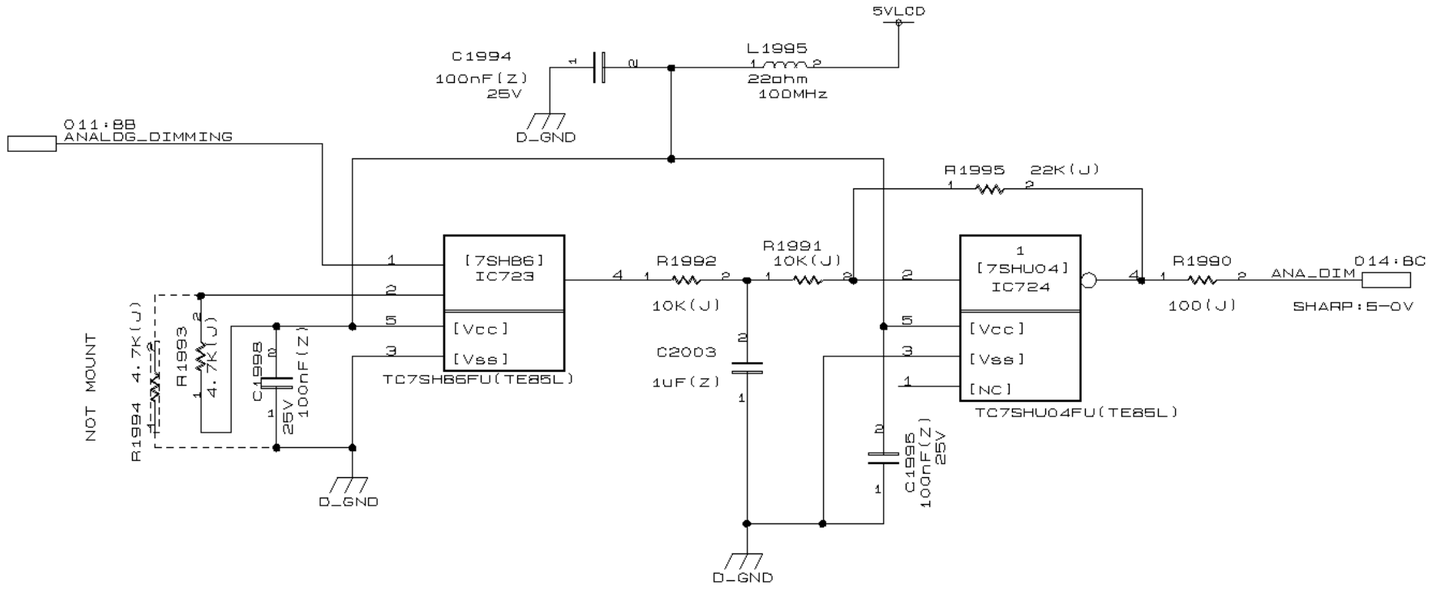
32WL46B/32WL46G
SCALER (SUB MICOM (2))
SHEET-8/23

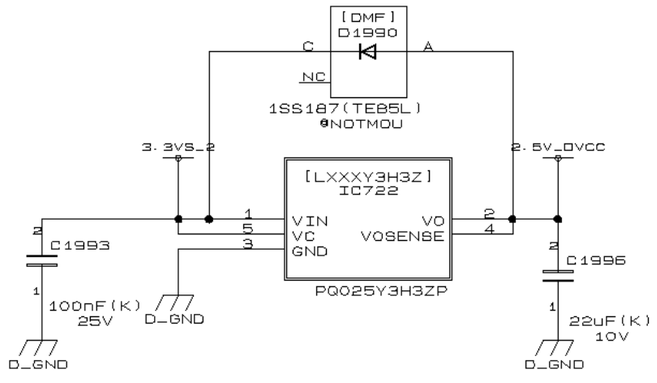


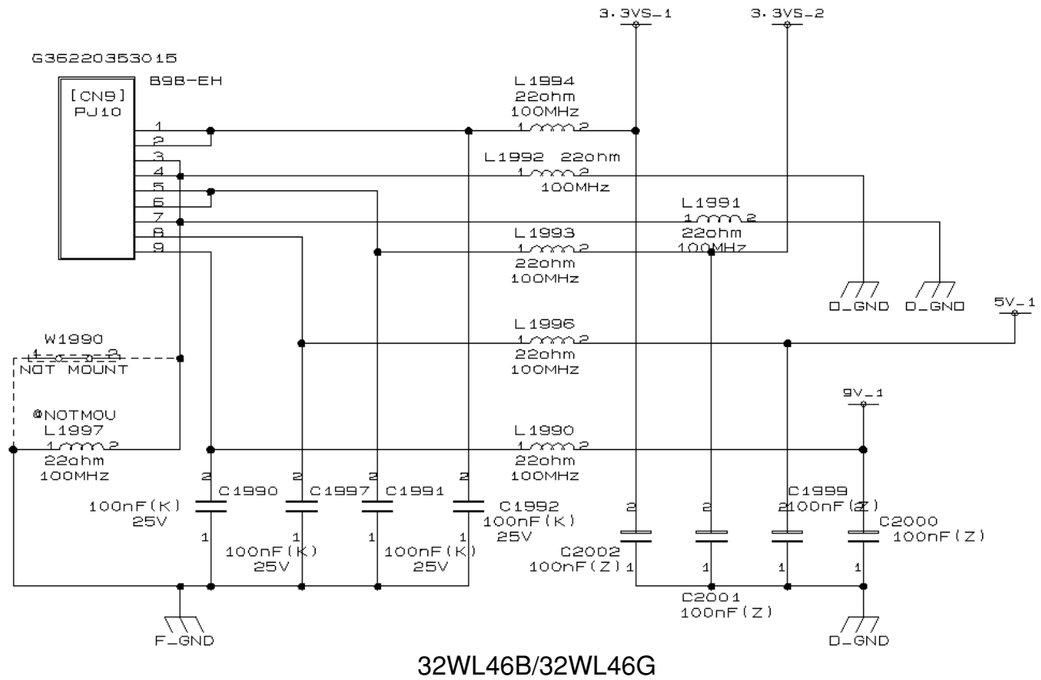


32WL46B/32WL46G
SCALER (SUB MICOM (3))
SHEET-9/23

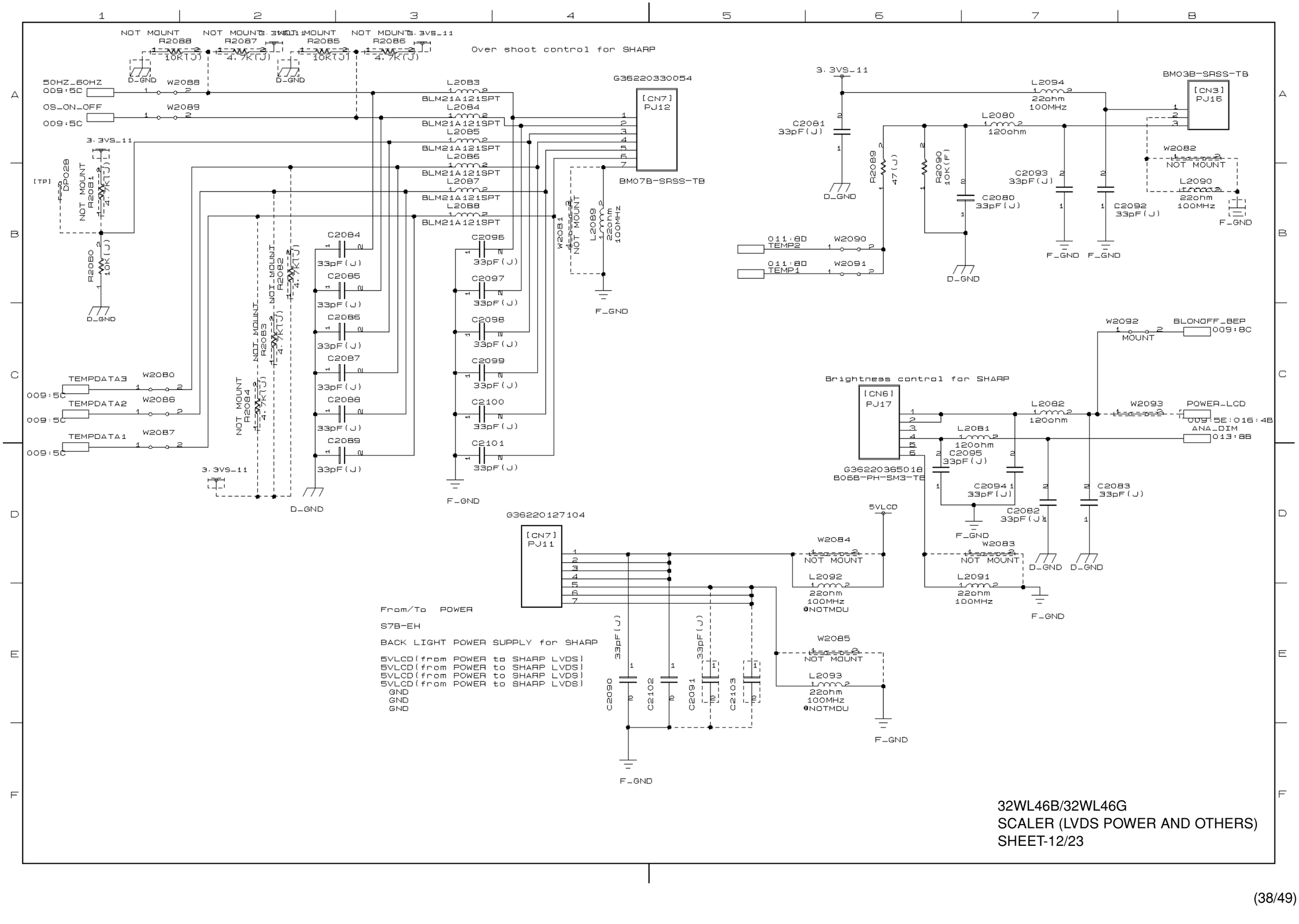

FPD_DBEP 5/9
[G90A94]
IC700
[PANEL I/F]
L : 1相
H : 2相
LVDS TRANSMITTER
[I83]
IC721
for SHARP
(SELLVDS HIGH)
/PDWN
RS
R/F
[RMX4A] RM970
[RMX4A] RM971
[RMX4A] RM972
[RMX4A] RM973
[RMX4A] RM974
[RMX4A] RM975
33(J)
NOT MOUNT
NOTMOU
3.3VS-2
D_GND
4.7K(J)
R1970
R1971
R1972
R1973
R1974
R1975
R1976
R1977
R1978
R1979
R1980
R1984
R1985
R1981
R1982
SUB_RESET2
PWDN_MUTE
W2128
ACM2012-201-2P-T
FL972
FL973
FL974
FL971
FL970
[8607J]
CKPANEL
HDOUT
VDOUT
DEOUT
PARITY
HD_P
VD_P
R1986
R1987
R1988
R1989
R1996
R1997
C1972
C1971
C1973
C1970
1uF(Z)
10V
W1970
L1970
220ohm
100MHz
R1993
4.7K(J)
63mW
[LVDSVCC]
[LVDSGND]
[PLLVCC]
[PLLGND]
[VCC]
[GND]
CLKIN
TCLK+
TCLK-
TA+
TA-
TB+
TB-
TC+
TC-
TD+
TD-
TA0
TA1
TA2
TA3
TA4
TA5
TA6
TB0
TB1
TB2
TB3
TB4
TB5
TB6
TC0
TC1
TC2
TC3
TC4
TC5
TC6
TD0
TD1
TD2
TD3
TD4
TD5
TD6
RA+1
RA-1
RB+1
RB-1
RC+1
RC-1
RD+1
RD-1
RCK+1
RCK-1
RX0-1
RX0+1
RX1-1
RX1+1
RX2-1
RX2+1
RX3-1
RX3+1
RXCLK-1
RXCLK+1
O15:1B
O15:1D
O15:1E
O16:4C
32WL46B/32WL46G
SCALER (LVDS OUT)
SHEET-10/23



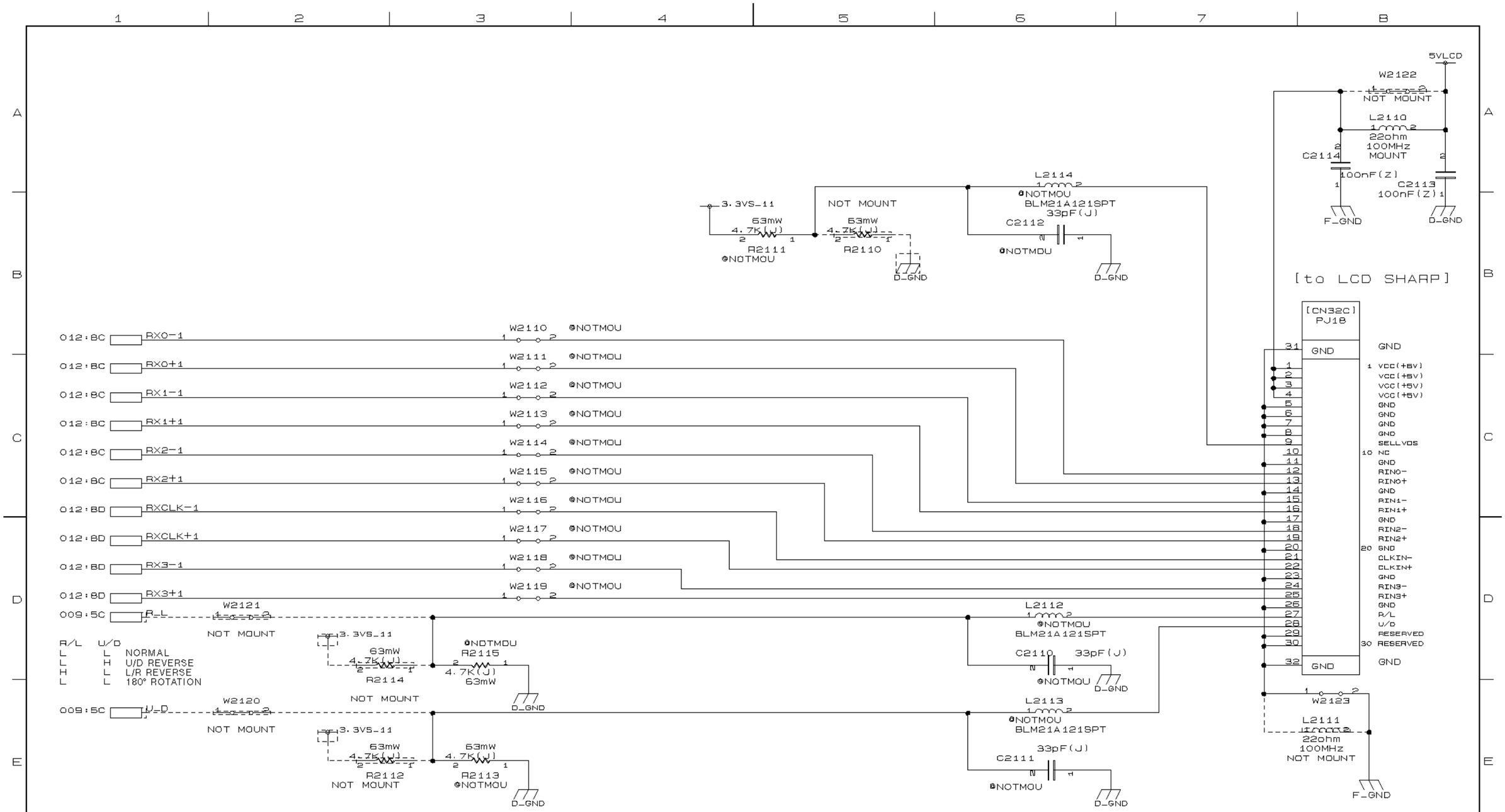




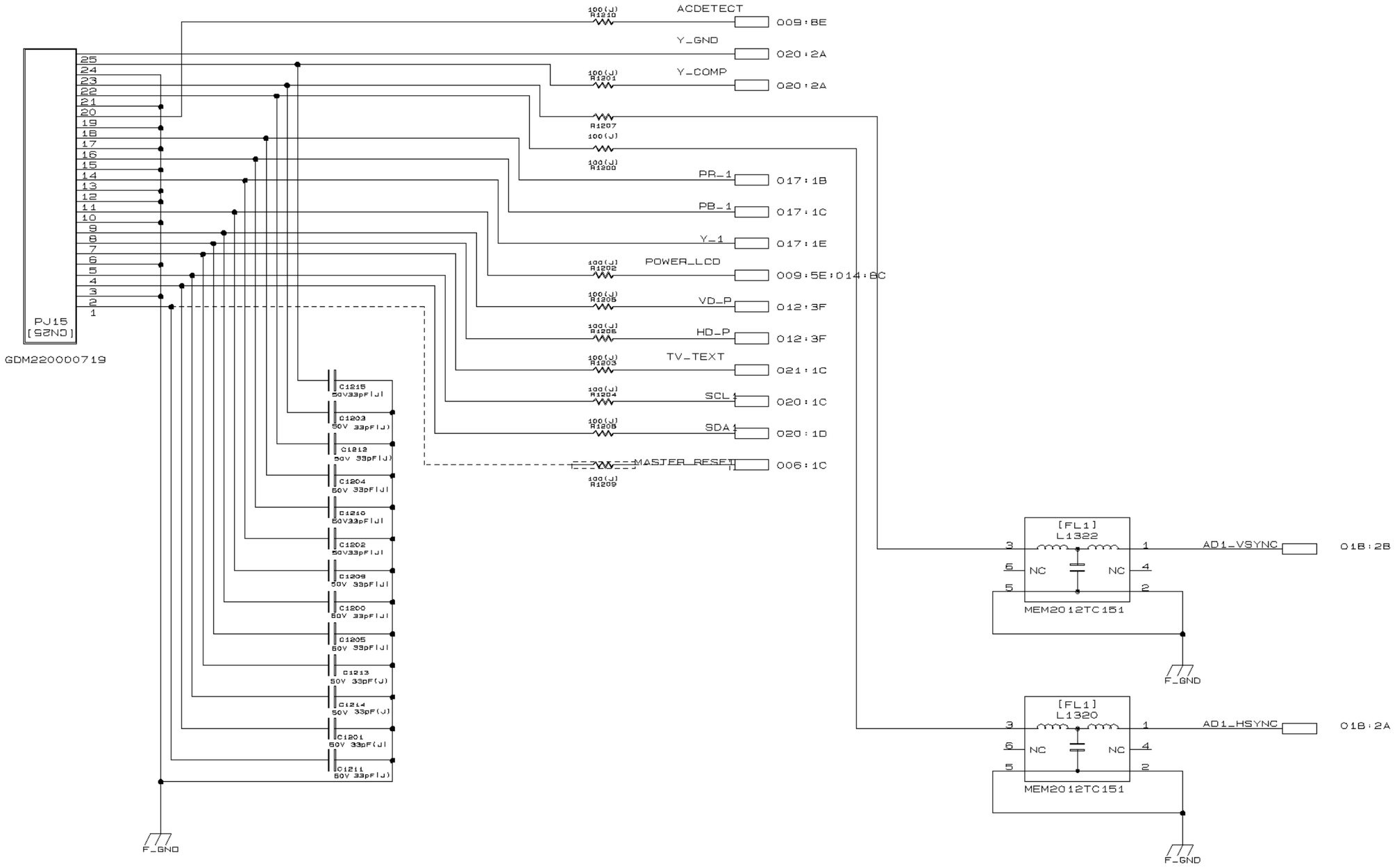
32WL46B/32WL46G
SCALER (POWER CONNECTOR AND DIMMING)
SHEET-11/23



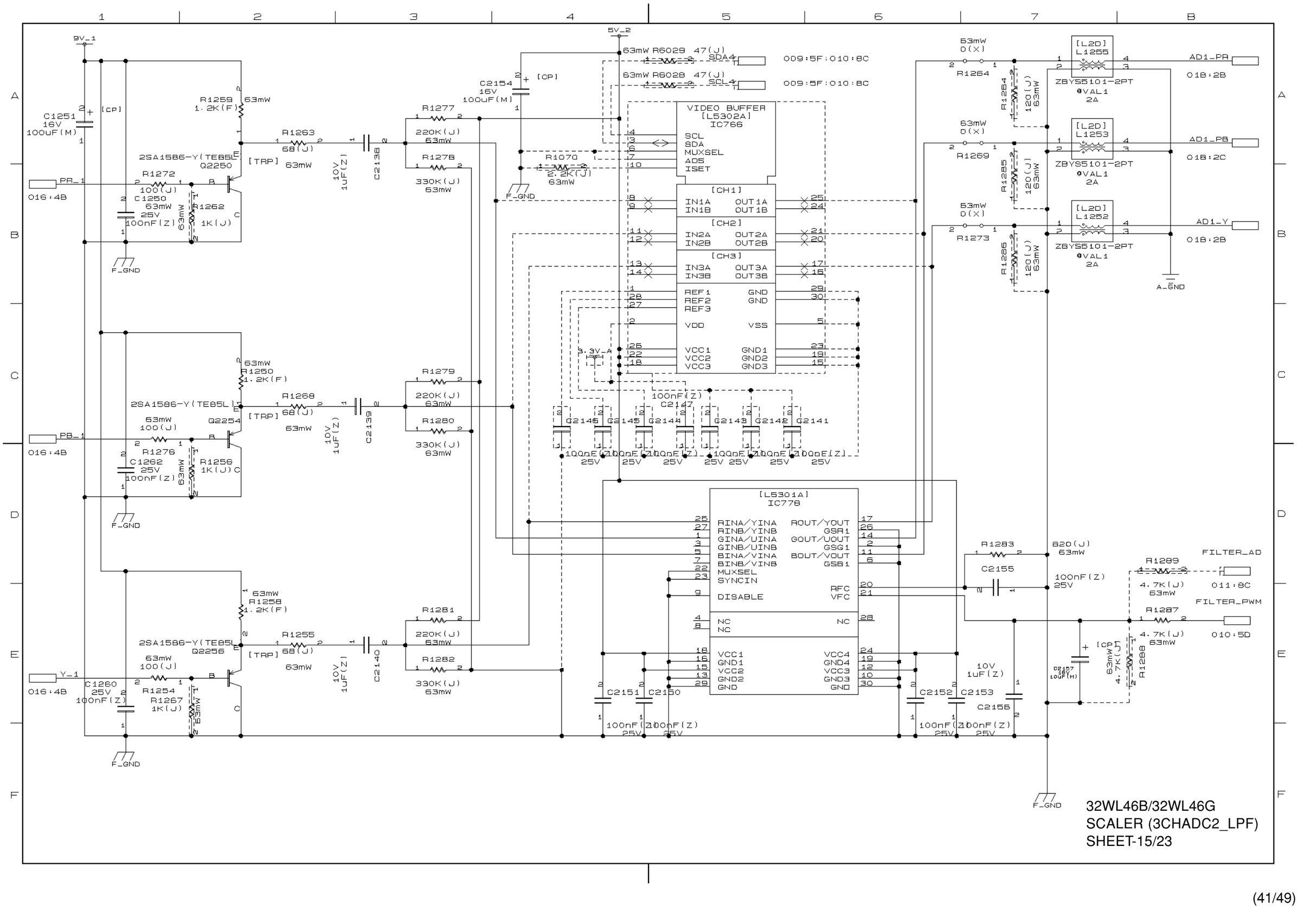
32WL46B/32WL46G
SCALER (LVDS POWER AND OTHERS)
SHEET-12/23

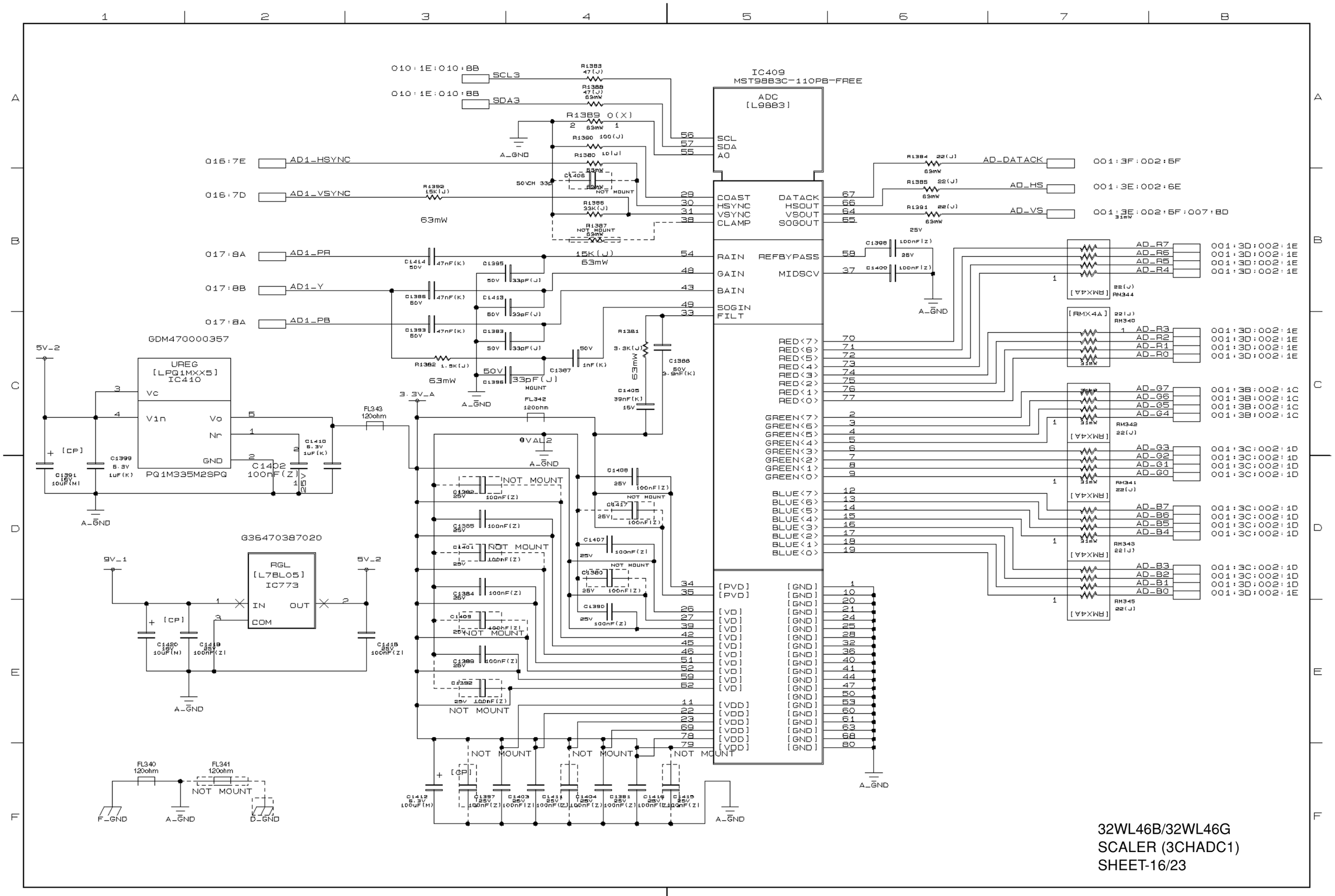


32WL46B/32WL46G
SCALER (LVDS OUT (SHARP LCD))
SHEET-13/23

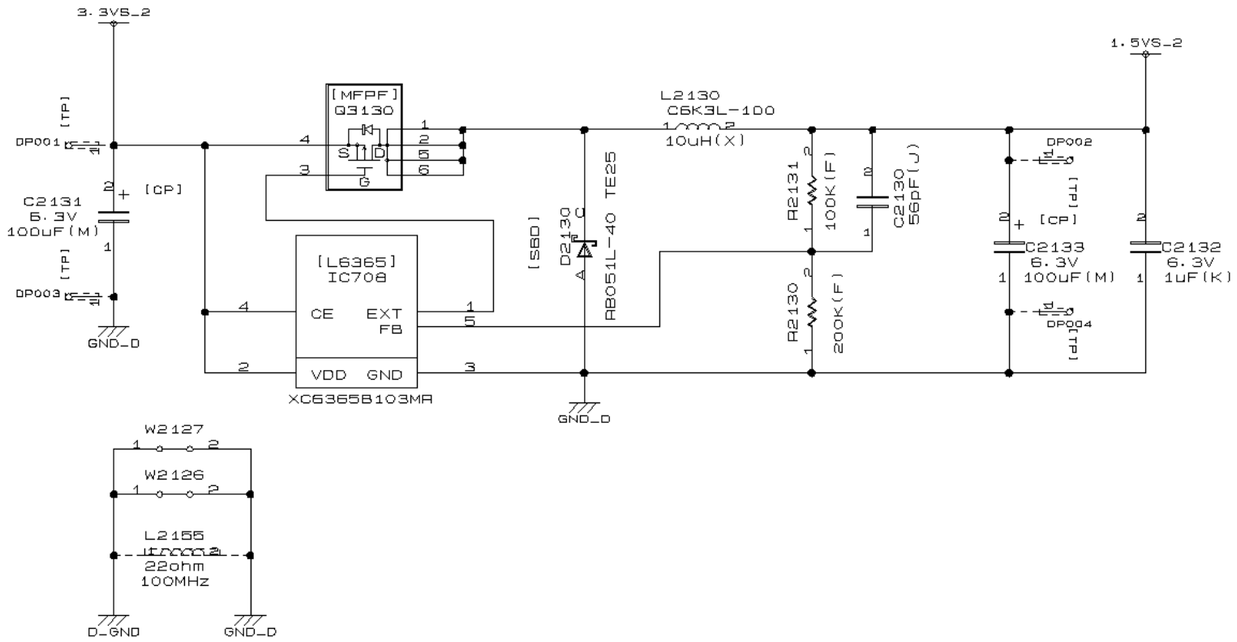


32WL46B/32WL46G
SCALER (CONNECTOR)
SHEET-14/23


9V_1
5V_2
C1251 16V 100uF(M) [CP]
R1259 1.2K(F) 63mW
R1263 68(J) 63mW
2SA1586-Y(TE85L,F) Q2250
[TRP]
R1272 100(J) 63mW
C1250 25V 100nF(Z)
R1262 1K(J) 63mW
PR_1
016:4B
F_GND
10V 1uF(Z) C2138
R1277 220K(J) 63mW
R1278 330K(J) 63mW
C2154 16V 100uF(M) [CP]
R1070 2.2K(J) 63mW
63mW R6029 47(J) SDA4
63mW R6028 47(J) SCL4
009:5F:010:8C
VIDEO BUFFER [L5302A] IC766
SCL
SDA
MUXSEL
ADS
ISET
[CH1] IN1A IN1B OUT1A OUT1B
[CH2] IN2A IN2B OUT2A OUT2B
[CH3] IN3A IN3B OUT3A OUT3B
REF1 REF2 REF3 GND GND
VDD VSS
VCC1 VCC2 VCC3 GND1 GND2 GND3
3.3V_A
100nF(Z) C2147
C2146 C2145 C2144 C2143 C2142 C2141
100nF(Z) 25V
63mW D(X)
R1264 R1269 R1273
120(J) 63mW
[L2D] L1255 L1253 L1252
ZBYS5101-2PT
VAL1 2A
AD1_PR AD1_PB AD1_Y
018:2B 018:2C 018:2B
A_GND
R1250 1.2K(F) 63mW
R1268 68(J) 63mW
2SA1586-Y(TE85L,F) Q2254
[TRP]
R1276 100(J) 63mW
C1262 25V 100nF(Z)
R1256 1K(J) 63mW
PB_1
016:4B
10V 1uF(Z) C2139
R1279 220K(J) 63mW
R1280 330K(J) 63mW
R1258 1.2K(F) 63mW
R1255 68(J) 63mW
2SA1586-Y(TE85L,F) Q2256
[TRP]
R1254 100(J) 63mW
C1260 25V 100nF(Z)
R1267 1K(J) 63mW
Y_1
016:4B
10V 1uF(Z) C2140
R1281 220K(J) 63mW
R1282 330K(J) 63mW
[L5301A] IC778
RINA/YINA RINB/YINB GINA/UINA GINB/UINB BINA/VINA BINB/VINB
MUXSEL SYNCIN DISABLE
ROUT/YOUT GOUT/UOUT BOUT/VOUT GSR1 GSG1 GSB1 RFC VFC
NC NC
VCC1 VCC2 VCC3 VCC4 GND1 GND2 GND3 GND4 GND
C2151 C2150 C2152 C2153 C2156
100nF(Z) 25V
10V 1uF(Z)
R1283 820(J) 63mW
C2155 100nF(Z) 25V
R1289 4.7K(J) 63mW
FILTER_AD
011:8C
FILTER_PWM
R1287 4.7K(J) 63mW
010:5D
C2157 10V 10uF(M)
R1288 4.7K(J) 63mW
F_GND
32WL46B/32WL46G
SCALER (3CHADC2_LPF)
SHEET-15/23



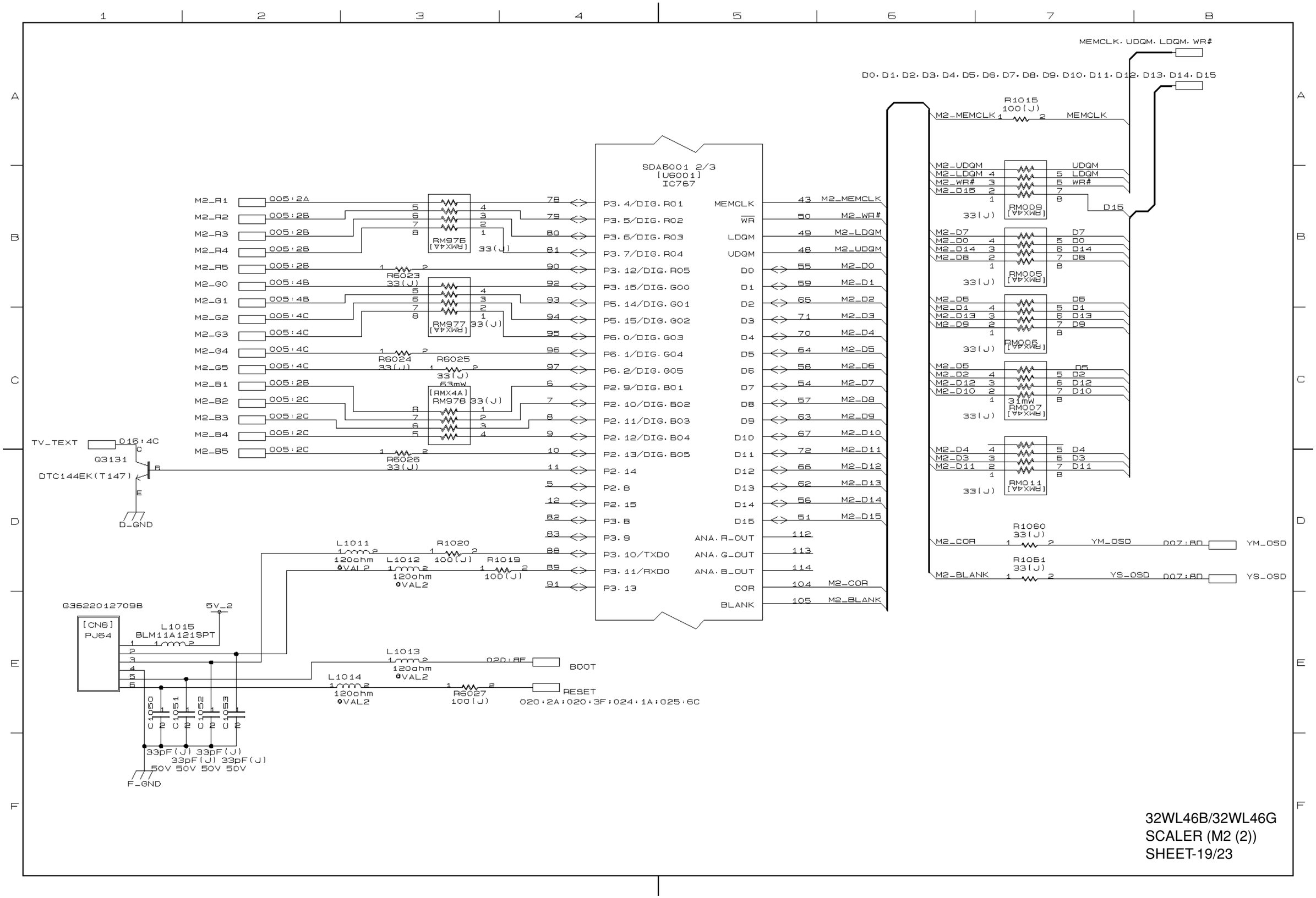
32WL46B/32WL46G
SCALER (3CHADC1)
SHEET-16/23

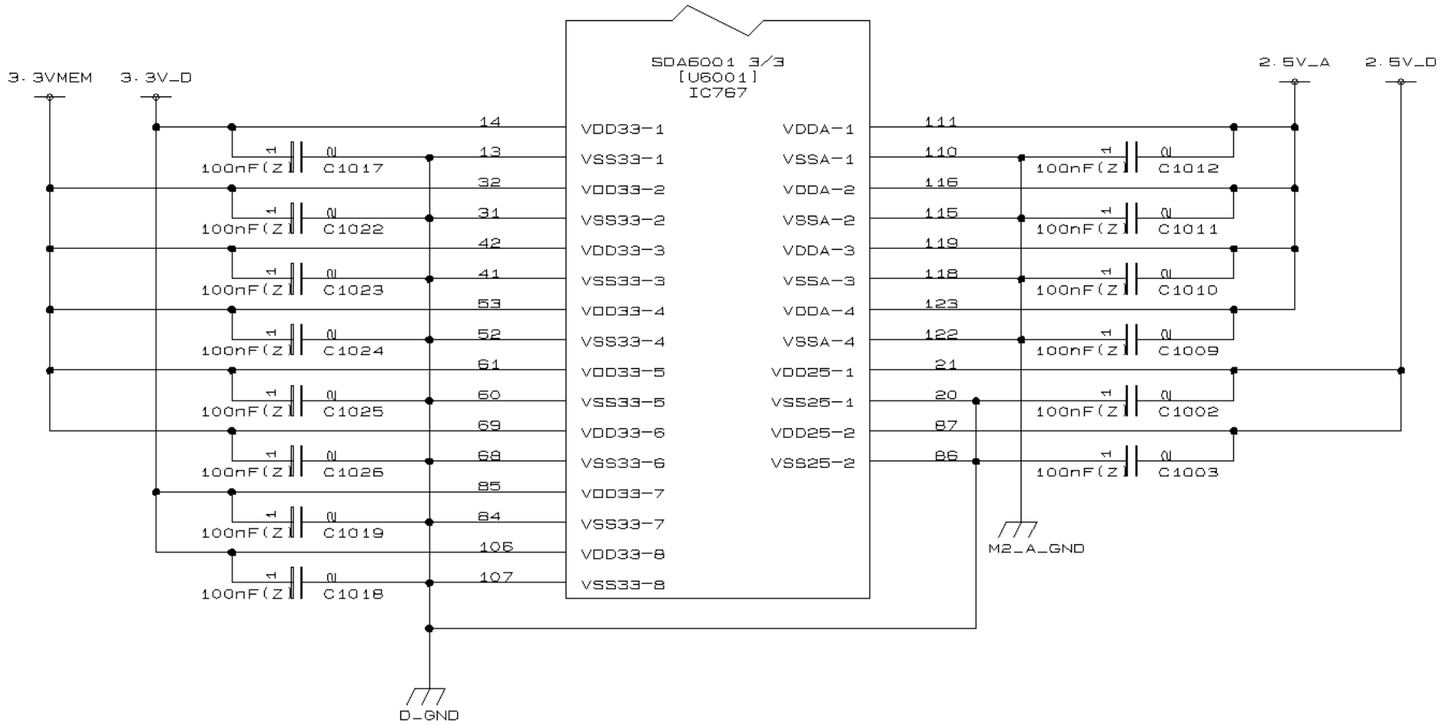


32WL46B/32WL46G
SCALER (DC/DC CONVERTER)
SHEET-17/23

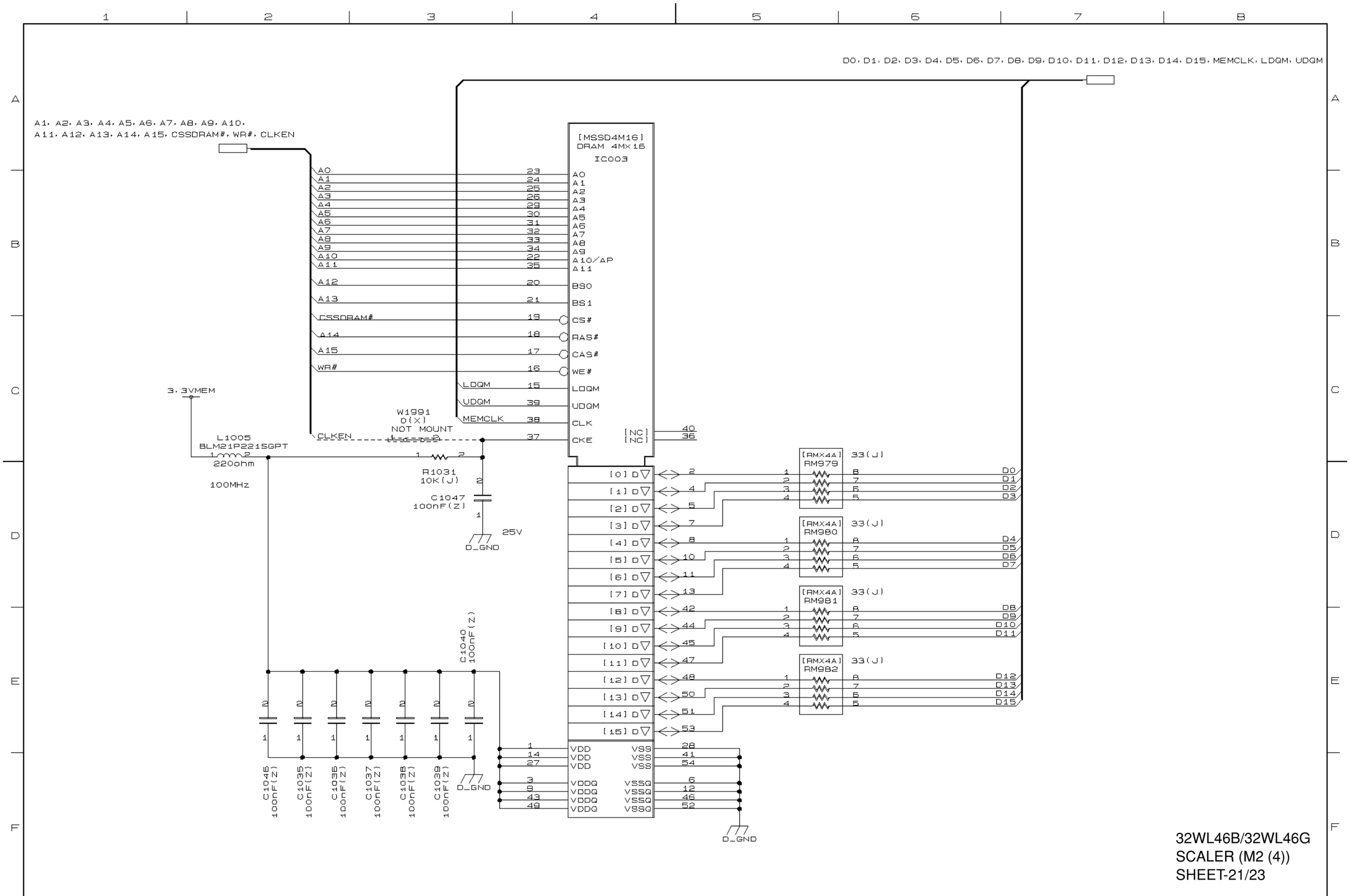
016:4A Y_COMP
016:4A Y_GND
020:3F:021:4E:024:1A:025:6C
RESET
[L2D]
L2156
C1034
100nF(Z)
@VAL1
200mA
25V
A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, A10, A11, A12, A13, A14, A15, A16, A17, A18, A19, A20, CSSDRAM#, CLKEN, CSROM#, RD#
W2131
NOT MOUNT
M2_A_GND
C1016 22pF(J)
C1015 22pF(J)
[X]
X1001
6MHz
50V
R1016
100(J)
63mW
007:8D M2_VD
007:8D M2_HD
R1067
100(J)
R1068
100(J)
63mW
SDA6001 1/3
[U6001]
IC767
121 CVBS1A
120 CVBS1B
117 CVBS2
73 RSTIN
108 XTAL1
109 XTAL2
102 VSYNC
103 HSYNC
74 SCL1
75 SDA1
101 SDAO
100 SCLO
99 SDA2
98 SCL2
1 TCK
3 TDI
4 TDO
2 TMS
128 TMODE
124 AN.0
125 AN.1
126 AN.2
127 AN.3
77 P3.3/PX_CLK_IN
76 P3.2
A0 37 M2_A0
A1 36 M2_A1
A2 35 M2_A2
A3 34 M2_A3
A4 33 M2_A4
A5 27 M2_A5
A6 26 M2_A6
A7 24 M2_A7
A8 23 M2_A8
A9 25 M2_A9
A10 28 M2_A10
A11 29 M2_A11
A12 30 M2_A12
A13 38 M2_A13
A14/RAS 39 M2_A14
A15/CAS 40 M2_A15
P4.0/A16 22 M2_A16
P4.1/A17 19 M2_A17
P4.2/A18 18 M2_A18
P4.3/A19 17 M2_A19
P4.4/A20 16 M2_A20
P4.5/CS3 15
RD 47 M2_RD#
CSROM 46 M2_CSROM#
CSSDRAM 44 M2_CSSDRAM#
CLKEN 45 M2_CLKEN
31mW
[RMX4A] RM008 33(J)
M2_A8 A8
M2_A7 A7
M2_A9 A9
M2_A6 A6
[RMX4A] RM003 33(J)
M2_A5 A5
M2_A10 A10
M2_A11 A11
M2_A12 A12
[RMX4A] RM001 33(J)
M2_A4 A4
M2_A3 A3
M2_A2 A2
M2_A1 A1
[RMX4A] RM002 33(J)
M2_A0 A0
M2_A13 A13
M2_A14 A14
M2_A15 A15
[RMX4A] RM004 33(J)
M2_CSSDRAM# CSSDRAM#
M2_CLKEN CLKEN
M2_CSROM# CSROM#
M2_RD# RD#
31mW
31mW
[RMX4A] RM010 33(J)
M2_A20 A20
M2_A19 A19
M2_A18 A18
M2_A17 A17
3.3VMEM
R1024 220K(J) 63mW
R1023 4.7K(J)
R1065 33(J) 63mW
M2_A16 A16
021:4E BOOT
010:8A SCL33
010:8A SDA33
RK7002 T116
Q2002
@VAL3
SCL1
016:4C
[MFNG]
3.3V_A
R1032 10K(J) 63mW
R1025 10K(J) 63mW
SDA1
016:4C Q2001 RK7002 T116
@VAL3
NOT MOUNT
EEPROM
[MSEE8K8]
IC770
SDA
SCL
AO
A1
A2
WP
[VCC] [GND]
AT24C64AN-10SJ-2.7
R1035 3.3K(J) NOT MOUNT
R1034 3.3K(J) NOT MOUNT
R1033 10K(J) 63mW
3.3V_D
D_GND
OSD_CLK
005:5F:007:1C
NOT MOUNT
[CN16] PJ14
[RMX4A] RM012 33(J)
31mW
R1069 33(J) 63mW
RESET
020:2A:021:4E:024:1A:025:6C
3.3VMEM
R1028 220K(J)
R1027 220K(J)
R1030 4.7K(J) NOT MOUNT
R1029 4.7K(J) NOT MOUNT
R1026 220K(J) NOT MOUNT
D_GND
63mW
63mW
63mW
63mW
63mW

32WL46B/32WL46G
SCALER (M2 (1))
SHEET-18/23


SDA6001 2/3
[U6001]
IC767
P3.4/DIG.R01
P3.5/DIG.R02
P3.6/DIG.R03
P3.7/DIG.R04
P3.12/DIG.R05
P3.15/DIG.G00
P5.14/DIG.G01
P5.15/DIG.G02
P6.0/DIG.G03
P6.1/DIG.G04
P6.2/DIG.G05
P2.9/DIG.B01
P2.10/DIG.B02
P2.11/DIG.B03
P2.12/DIG.B04
P2.13/DIG.B05
P2.14
P2.8
P2.15
P3.8
P3.9
P3.10/TXD0
P3.11/RXD0
P3.13
MEMCLK
WR
LDQM
UDQM
D0
D1
D2
D3
D4
D5
D6
D7
D8
D9
D10
D11
D12
D13
D14
D15
ANA.R_OUT
ANA.G_OUT
ANA.B_OUT
COR
BLANK
M2_R1
M2_R2
M2_R3
M2_R4
M2_R5
M2_G0
M2_G1
M2_G2
M2_G3
M2_G4
M2_G5
M2_B1
M2_B2
M2_B3
M2_B4
M2_B5
005:2A
005:2B
005:2C
005:4B
005:4C
RM975 [4AMX]
RM977 [4AMX]
RM978 [RMX4A]
R6023 33(J)
R6024 33(J)
R6025 33(J)
R6026 33(J)
TV_TEXT
D16:4C
Q3131
DTC144EK(T147)
D_GND
L1011 120ohm #VAL2
L1012 120ohm #VAL2
L1013 120ohm #VAL2
L1014 120ohm #VAL2
L1015 BLM11A121SPT
R1020 100(J)
R1019 100(J)
R6027 100(J)
020:8E
BOOT
RESET
020:2A:020:3F:024:1A:025:6C
G36220127098
[CN6]
PJ64
5V_2
C1050 C1051 C1052 C1053
33pF(J) 33pF(J) 33pF(J) 33pF(J)
50V 50V 50V 50V
F_GND
MEMCLK, UDQM, LDQM, WR#
D0, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12, D13, D14, D15
R1015 100(J)
M2_MEMCLK
MEMCLK
M2_UDQM
M2_LDQM
M2_WR#
M2_D15
UDQM
LDQM
WR#
D15
RM009 [4AMX] 33(J)
M2_D7
M2_D0
M2_D14
M2_D8
D7
D0
D14
D8
RM005 [4AMX] 33(J)
M2_D6
M2_D1
M2_D13
M2_D9
D6
D1
D13
D9
RM006 [4AMX] 33(J)
M2_D5
M2_D2
M2_D12
M2_D10
D5
D2
D12
D10
31mW
RM007 [4AMX] 33(J)
M2_D4
M2_D3
M2_D11
D4
D3
D11
RM011 [4AMX] 33(J)
R1060 33(J)
M2_COR
YM_OSD
007:8D
R1061 33(J)
M2_BLANK
YS_OSD
32WL46B/32WL46G
SCALER (M2 (2))
SHEET-19/23



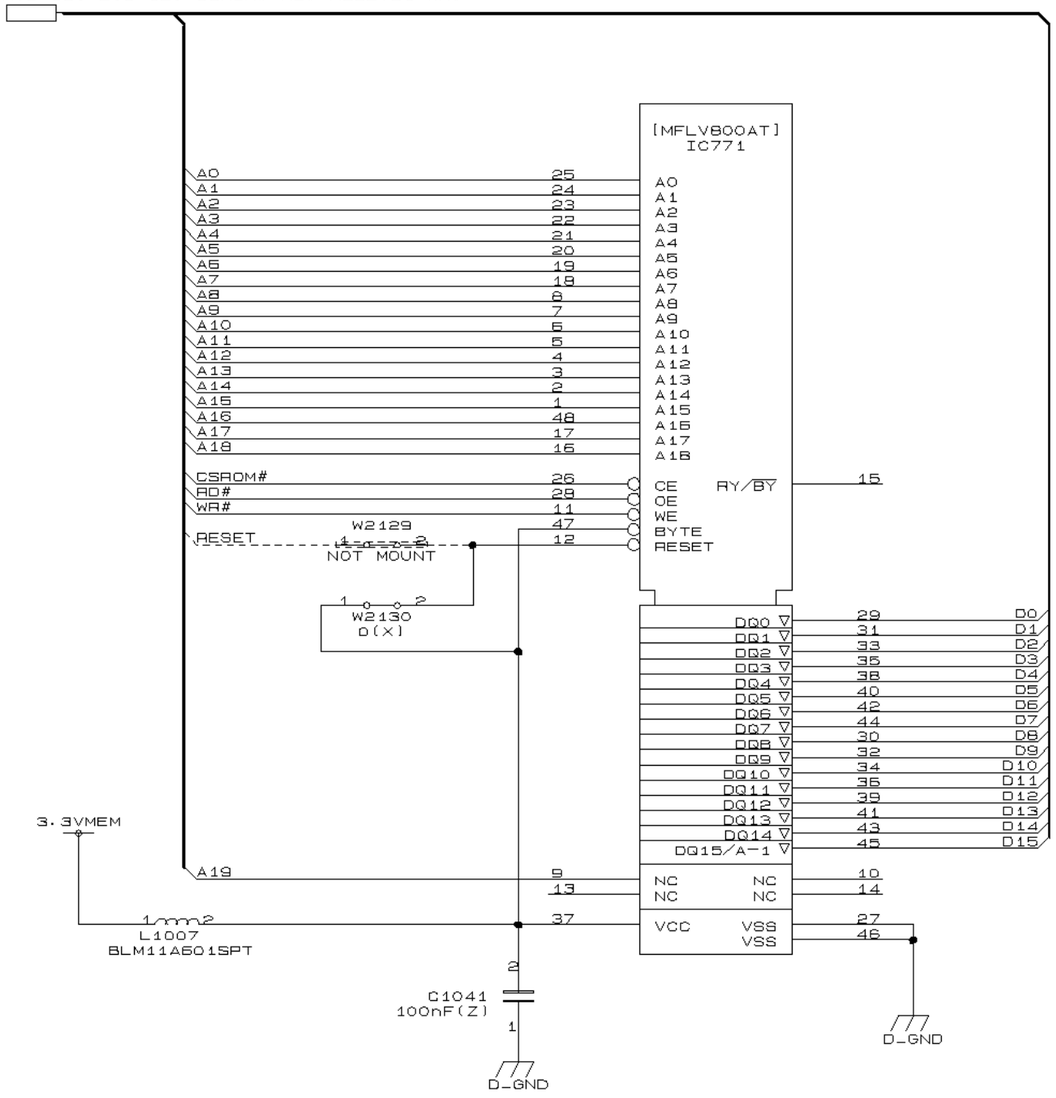
32WL46B/32WL46G
SCALER (M2 (3))
SHEET-20/23



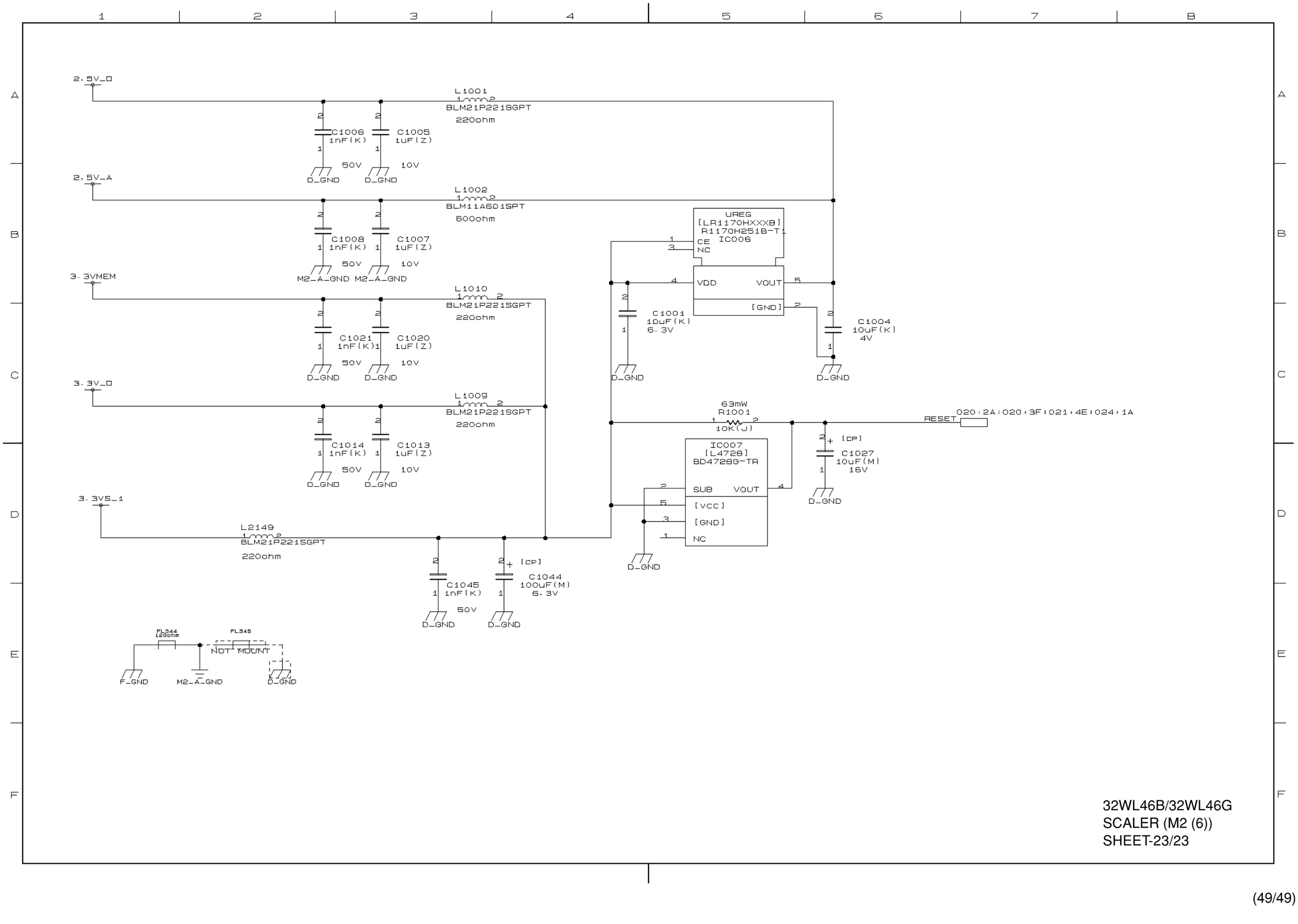
32WL46B/32WL46G
SCALER (M2 (4))
SHEET-21/23

A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, A10, A11, A12, A13, A14, A15, A16, A17, A18, A19, A20, CSROM#, D0, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12, D13, D14, D15, RD#, RESET, WR#

A[0:15], D[0:15], CSROM#, RD#, RESET_1, WR#



32WL46B/32WL46G
SCALER (M2 (5))
SHEET-22/23



32WL46B/32WL46G
SCALER (M2 (6))
SHEET-23/23